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ABSTRACT

This monograph provides current data on Hispanic stress and its impact on mental health and identifies areas where further research is needed. It consists of 11 chapters by a variety of authors. Chapter 1 presents a critical overview of major issues and concepts in stress modeling and cross-cultural research with Hispanic populations. Chapter 2 summarizes findings on the prevalence of symptomatology among Hispanics and scrutinizes trends. Chapter 3 discusses the determination of the relative usefulness of the stress buffering and direct effect hypotheses of social support using stress theory to guide analysis. Chapter 4 illustrates the use of multifactorial modeling in identifying factors which predict discrete symptoms and syndromes among immigrant and native-born Mexican-Americans. Chapter 5 examines the differential impact of life events on Mexicans, Mexican-Americans, and Anglos using psychological distress as the outcome measure. Chapter 6 reviews social support theory and methodological issues as they pertain to Hispanic mental health research. Chapter 7 presents a conceptual model for systematically developing studies of Hispanic mental health. Chapter 8 examines the effectiveness of a specific coping style used by Hispanic immigrants in adjusting to a new culture. Chapter 9 examines differences among Mexican-Americans and Anglos in relation to knowledge of and attitudes toward stress. Chapter 10 provides data on child abuse within a Mexican-American population. Chapter 11 presents findings from a comprehensive survey of the life experiences of a group of pregnant Hispanic adolescents. (KH)

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National Institute of Mental Health

Stress & Hispanic Mental Health

Relating Research to Service Delivery

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Alcohol, Drug Abuse, and Mental Health Administration

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Stress & Hispanic Mental Health

Relating Research to Service Delivery

Edited by
William A. Vega, Ph.D.
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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
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Foreword

A major priority for the National Institute of Mental Health is the encouragement of research in the area of ethnic minority mental health. The accumulation of a critical mass of theoretical and data-based information capable of providing structure and guidance in the formulation of future research studies is a vital link in the development of the field. The Center for Studies of Minority Group Mental Health has consistently provided leadership in supporting these activities, and the current monograph is an excellent example of this effort.

This monograph, dealing with the Nation's second largest ethnic minority group, was written for purposes of providing current data on Hispanic stress and its impact on mental health status; formulating theoretical models capable of guiding new research studies; identifying areas in which research is needed; and formulating a general research agenda. The editors and authors are to be commended for the creativity and thoroughness with which they approached their task. The multidisciplinary approach to the multifaceted issues of Hispanic stress and mental health demonstrates the excitement and challenge in this area. Considering the virtual absence of previous work in the area of Hispanic stress, this group of scholars has provided a pioneering effort that should have far-reaching implications for the funding of future research efforts by the National Institute of Mental Health.

The attraction of new researchers to the field of ethnic minority stress and mental health status is a major objective in the publication of this volume. To answer the many significant questions raised here will require a significant increase in the pool of research talent capable of responding to the challenges set forth. It is with optimism that we look forward to accomplishment of these challenges and the accompanying advancement of the field of ethnic minority mental health.

Juan Ramos, Ph.D.
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Special Mental Health Programs
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Preface

Readers new to the literature concerning Hispanic mental health are often dismayed by the mosaic of findings, the lack of continuity, and the frequently contradictory and unsupported assertions found therein. Much of the literature is inherently interesting and includes valuable cultural profiles that illustrate patterns of thought and behavior having ethnographic and clinical importance. Unfortunately, however, much of the research is also fragmented and isolated, making it difficult to generalize from the literature to an increasingly complex Hispanic population. A second disappointment in the literature is the absence of research that uses comparable designs and standardized measures. Researchers have expended enormous energy documenting various social-psychological and cultural phenomena believed to be related to mental health, but their findings have limited comparability with mainstream mental health research.

A promising alternative for future research is the use of research paradigms to assess suspected relationships between factors and processes and specific pathogenic outcomes. This volume addresses the subject of Hispanic mental health by presenting current concepts and issues in social stress modeling, as well as findings from research employing compatible theory and designs. The stress paradigm constitutes a theory of causation and provides an integrative framework and an empirical rationale for conducting cross-cultural research with the prospect of linking findings regarding Hispanics with other national and international data bases.

The authors underscore these issues in the hope of increasing the usefulness of future research findings in Hispanic mental health and ensuring that robust research designs will receive favorable critical appraisal.

This volume consists of two major areas. Chapters 1 through 6 attempt to explain stress theory and derivative concepts, illustrate the application of stress modeling in cross-sectional studies, and present new data on the status of Hispanic mental health. Chapters 7 through 11 discuss issues related to the application of stress theory within the context of clinical research and practice. The authors have attempted to approach their subject matter using an integrated and systematic framework. All are recognized researchers and practitioners with many years of involvement in the mental health field.

Although stress theory is not new to the field of mental health, it has not been used systematically in the field of Hispanic mental health. We emphasize it in this monograph because we believe that different social and cultural groups experience varying magnitudes of stress and have varying availability and use of coping resources, and that both of these are closely tied to social empowerment. Given the historical evidence as well as demographic trends, we know that a substantial percentage of Hispanics are culturally and economically marginal in American society. It is axiomatic in stress theory that such circumstances indicate increased risk for physical and mental health anomalies.

Moreover, people who are most isolated from the mainstream of the society in which they live are also least likely to possess the coping resources necessary to offset the detrimental effects of the persistent strains and major stresses that result from such marginality. The growing evidence concerning social disorganization and personal dysfunction among Hispanics, in stark contradiction to the earlier anthropological literature describing Mexican-American folk culture and family patterns, suggests that many Hispanics have been overwhelmed in terms of their personal coping resources.

We appear to be close to a major breakthrough in our longstanding ignorance concerning the mental health status of Hispanics. However, many questions remain that can only be resolved through the most careful application of research technology. We hope this volume contributes insight into what strategies are effective in Hispanic mental health research. Following is a brief overview of the volume.

Chapter 1 presents a critical overview of major issues and concepts in stress modeling and cross-cultural research with Hispanic populations and discusses their bearing on past and future research. Chapter 2 summarizes what is known about the prevalence of symptomatology among Hispanics, scrutinizing the data base for trends and discontinuities. This chapter also discusses theoretical and methodological implications.

Chapters 3, 4, and 5 provide examples of stress modeling using cross-sectional data gathered in studies that included Hispanic populations. Chapter 3 contributes an empirical test to determine the relative usefulness of the stress buffering and direct effect hypotheses of social support using stress theory to guide the analyses. Chapter 4 illustrates the use of multifactorial modeling in identifying factors which predict discrete symptoms and syndromes among Mexican immigrants and native-born Mexican-Americans. Chapter 5 examines the differential impact of life events on Mexicans, Mexican-Americans, and Anglos using psychological distress as the outcome measure, and discusses the implications of these findings for future research in this neglected area of investigation.

Chapter 6 develops an exhaustive review of social support theory, concepts, and methodological issues as they pertain to Hispanic mental health research. The field of network and social support assessment is rapidly growing in sophistication and increasingly moving toward causal modeling. This chapter provides an opportunity to review the implications of these trends with respect to Hispanic mental health research.

Chapters 7 through 11 provide clinical examples and insights into how stress is assessed and dealt with among Hispanic populations. Case examples of how specific stressors (e.g., migration, achievement stress, child abuse, pregnancy) affect the mental health status of Hispanics in relation to their ability to cope with these stressors are discussed. Chapter 7 presents a conceptual model from which a series of significant studies can be systematically developed in increasing knowledge of Hispanic mental health. The proposed model discusses the role of coping responses and personal resources as mediating variables, and illustrates the dynamic role social support plays in the relationship between stressful life events and mental health status.

Chapters 8, 9, 10, and 11 provide specific case illustrations of the theoretical relationships discussed in chapter 7. Chapter 8 examines the effectiveness of a specific coping style (*controlarse*, or self-control) used by Hispanic immigrants in dealing with the variety of stressors accompanying adjustment to a new culture. Childrens' behavioral problems and husband-wife conflicts are areas used to illustrate how *controlarse* serves as a mediating variable in effecting mental health status. Chapter 9 examines differences among Mexican-Americans and Anglos in relation to knowledge of and attitudes toward stress, particularly as stress relates to susceptibility to physical disability. Cultural differences in assessment of health-threatening situations, as well as in coping styles to reduce risk, are discussed. Chapter 10 provides both demographic information and indepth case illustrations of the manifestation of child abuse within a Mexican-American population. The interaction of socioeconomic stressors and cultural coping styles are examined as antecedents to child abuse. More significantly, a diagnostic system based on the stress-mental health interactional model presented in chapter 7 is outlined.

Chapter 11 presents findings from a comprehensive survey of the life experiences of a group of pregnant Hispanic adolescents. Based on the survey results, a model for assessing the areas and degrees of risk contributing to debilitating stress among this population is developed. The ways specific stressors are moderated by coping style, personal resources, and support networks are discussed from the perspective of providing effective intervention strategies.

The editors wish to acknowledge the support of the Minority Center, National Institute of Mental Health, for encouraging the production of this monograph. We also wish to thank the contributing authors for their work. The editors accept full responsibility for substantive errors or inaccuracies which may occur in this volume.

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Table of Contents

Page

Foreword iii

Preface v

List of Authors ix

Chapter 1
Modeling Cross-Cultural Research in Hispanic Mental Health
by William A. Vega, Richard L. Hough, and Manuel R. Miranda 1

Chapter 2
Mental Health Issues in the Hispanic Community: The Prevalence of Psychological Distress
by William A. Vega, George J. Warheit, and Kenneth Meinhardt 30

Chapter 3
The Meaning of Social Support and the Mediation of Stress Across Cultures
by William A. Vega and Bohdan Kolody 48

Chapter 4
Mexican-American Immigration and Mental Health: A Comparative Analysis of Psychosocial Stress and Dysfunction
by George J. Warheit, William A. Vega, Joanne Auth, and Kenneth Meinhardt ... 76

Chapter 5
Life Events and Stress in Mexican-American Culture
by Richard L. Hough 110

Chapter 6
Hispanic Social Networks, Social Support, and Mental Health
by Ramón Valle and Gloria Bensussen 147

Chapter 7
A Conceptual Model for Clinical Research on Stress and Mental Health Status: From Theory to Assessment
by Manuel R. Miranda and Felipe Castro 174

Chapter 8
Controlarse and the Problems of Life Among Latino Immigrants
by Lucy M. Cohen 202

Chapter 9
Stress and Illness: A Multivariate Analysis of Perceived Relationships Among Mexican-American and Anglo-American Junior College Students
by Felipe Castro and Manuel R. Miranda 219

Chapter 10
Stress and Child Abuse in the Hispanic Community: A Clinical Profile
by José Navarro and Manuel R. Miranda ... 239

Chapter 11
The Hispanic Adolescent Mother: Assessing Risk in Relation to Stress and Social Support
by Diane deAnda 267

12

CHAPTER 1

MODELING CROSS-CULTURAL RESEARCH IN HISPANIC MENTAL HEALTH

William A. Vega, Richard L. Hough, Manuel R. Miranda

This chapter identifies and discusses several major issues--both scientific and pragmatic--that have hindered the development of theoretical models in the field of Hispanic mental health research. Because the literature on Hispanic mental health is based on concepts and methods from various disciplines, it tends to be fragmented, inconsistent as to research methods, and divided into artificially separate areas of investigation. We hope this volume will bring a more unified focus and stimulate broader debate concerning research models appropriate to the subject of Hispanic mental health.

A second problem with respect to Hispanic mental health research stems from inadequacies in the tools available for cross-cultural research. The effort to systematically define mental illness and related behaviors quickly leads to a labyrinth of qualifications, exceptions, and ambiguities when studying multicultural environments. Too frequently the concepts, research designs, and instruments we use do not enable us to understand psychiatric disorder in all of its culturally unique as well as its universal aspects. This situation results from both our lack of understanding of psychiatric phenomena (Srole and Fischer 1980) and our lack of sophistication with cross-cultural research.

In this chapter, we present literature pertinent to assessing the context and content of mental disorders based on the dynamics of social stress theory. We use the stress paradigm in order to appraise and integrate our knowledge of Hispanic mental health. Nevertheless, relatively few Hispanic mental health research studies have used stress research models within either a clinical or field setting (although this volume includes examples of both). Thus this volume draws heavily on more general mental health research with its formidable collection of theories, designs, and findings to guide us in the area of Hispanic mental health. Much of that general research is touched upon in this and subsequent chapters.

We hope to provide a strong overview of the issues and an adequate grounding in the literature to provide direction for those whose specialized interests require it. We do not propose to present a "cookbook" approach to research design. Rather, we endeavor to provide a rich foundation for interpreting the existing research in the field of mental health and a helpful perspective for formulating new research.

The Hispanic mental health research literature includes hundreds of references dealing with various aspects of psychological functioning, psychopathology, social support, and behavioral health (Newton et al. 1982). Much of the descriptive literature, however, lacks clear measures of clinically significant mental disorder. Indeed, much of it was never intended to have any direct mental health relevance or application. Therefore, we need more knowledge concerning possible associations between the multitude of psychological-social-cultural factors and psychiatric signs, symptoms, and syndromes. Yet, despite its limitations, knowledge of this considerable literature is basic to any future empirical or clinical research in the field of Hispanic mental health.

Although we know little about culturally based manifestations of psychiatric disorders or the prevalence of symptoms and syndromes measured by a standardized protocol such as the American Psychiatric Association's Diagnostic and Statistical Manual III (DSM-III) (1980), progress is being made. The growing body of research dealing with the distribution of psychological symptoms among Mexican-Americans is reviewed in chapter 2. At this writing, two field studies are in progress in Los Angeles (Hough et al. 1983) and Puerto Rico which will produce prevalence and incidence data for Mexican-Americans and Puerto Ricans using a diagnostic measure, the Diagnostic Interview Schedule (DIS) (Robins et al. 1981). Yet, even these extensive field investigations are too broad to provide much insight into how the milieu that characterizes Hispanic culture affects the development of psychiatric disorders. This task awaits future carefully designed and coordinated research.

In order to more successfully accomplish field studies of mental health problems of Mexican-Americans (the particular Hispanic subgroup to which much of this volume is devoted), researchers need to be aware of the wide range of literature that bears on the psychosocial context and the substantive content of mental disorders among Mexican-Americans. That literature consists not only of studies specifically concerning this ethnic group, but also of studies of non-Mexican-origin populations that identify crucial themes in cross-cultural mental health research. Since clearly we cannot cover all the relevant literature, we try instead to illustrate the *kinds* of literature we think are important. We first explore the literature bearing on the psychosocial context of mental disorders and on cultural variations in coping styles and behaviors. We then turn to discussions of the classification and measurement of mental disorders in cross-cultural settings.

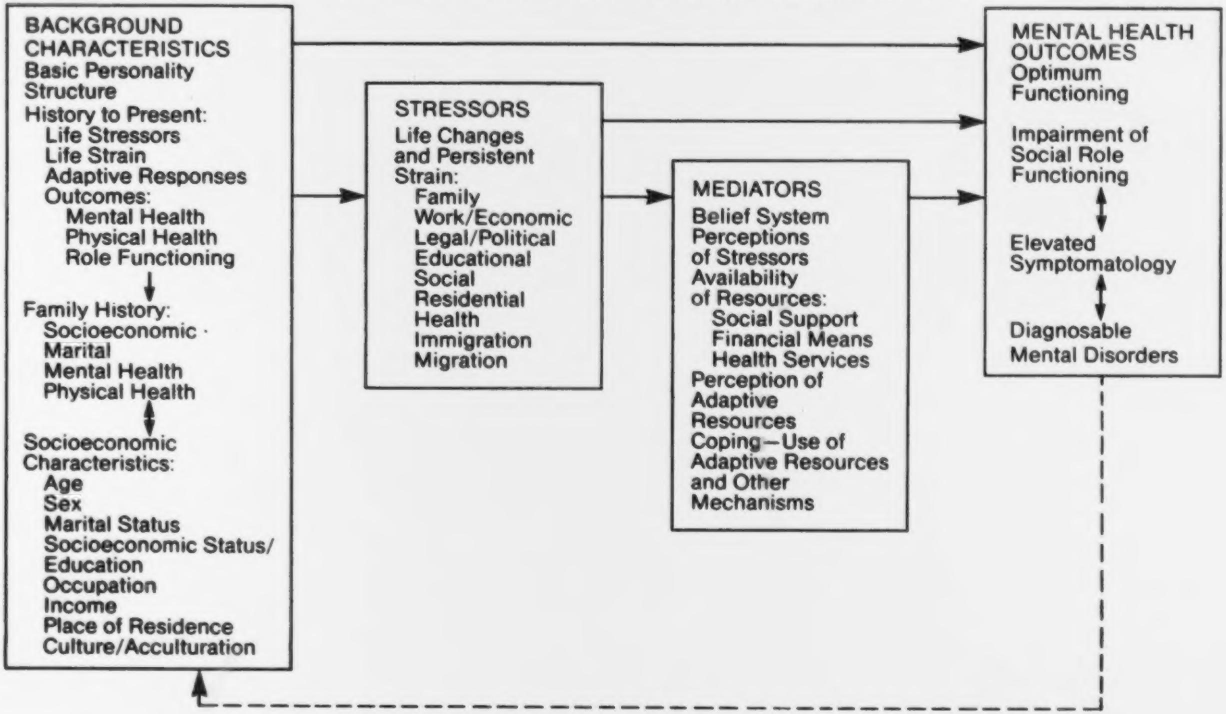
The Psychosocial Context of Mental Disorders

Researchers interested in Hispanic mental health may be frustrated and confused because much of the literature fails to explain relationships between factors and processes that presumably affect the incidence of mental disorders among Hispanics. For example, we cannot yet explain how demographic factors such as ethnicity, income, and education and processes such as immigration and acculturation relate to produce nonspecific psychological distress or major mental disorders. Virtually the only established epidemiological associations in Hispanic mental health are variations in symptom levels attributable to gender and socioeconomic status, findings that are common to all major sociodemographic groups in the United States. In order to move beyond mere speculation, consistent theoretical models and comparable research designs are needed.

The search for causes of mental illness, other than gross organically based disorders, has historically proceeded from a belief in unitary explanations of disorder to multifactorial models. Many contributing factors have been painstakingly scrutinized (Mental Health Service System 1983). First, certain factors have been identified that may predispose a person toward risk of mental illness. These include biological traits revealed in family studies of schizophrenia (Gottesman and Shields 1972) and demographic traits identified in studies of general and treatment populations (Dohrenwend and Dohrenwend 1969). Second, precipitating factors and conditions have been linked to the onset of psychiatric symptoms and disorders. Mental health researchers and practitioners increasingly rely on an accurate specification of precipitating factors, their linkages, and chronology (Bloom 1981). Third, intervening factors may affect an individual's ability to successfully cope with challenges. These mediating factors may be personal or extrapersonal resources (Warheit 1971). Such contributing factors form the theoretical basis of much current social-psychological stress modeling. (See for example, figure 1-1.)

The model shown in figure 1-1 is derived from the Rahe-Arthur conceptualization (1978), but it is a more complex and dynamic portrayal than the original. Rather than recognizing unilinear, or undifferentiated, relationships between intrapsychic and extrapsychic factors, our model is multileveled and

FIGURE 1-1.
A Model of Interactive Factors in Hispanic Mental Health


BACKGROUND CHARACTERISTICS
Basic Personality Structure
History to Present:
Life Stressors
Life Strain
Adaptive Responses
Outcomes:
Mental Health
Physical Health
Role Functioning
Family History:
Socioeconomic
Marital
Mental Health
Physical Health
Socioeconomic Characteristics:
Age
Sex
Marital Status
Socioeconomic Status/Education
Occupation
Income
Place of Residence
Culture/Acculturation
STRESSORS
Life Changes and Persistent Strain:
Family
Work/Economic
Legal/Political
Educational
Social
Residential
Health
Immigration
Migration
MEDIATORS
Belief System
Perceptions of Stressors
Availability of Resources:
Social Support
Financial Means
Health Services
Perception of Adaptive Resources
Coping—Use of Adaptive Resources and Other Mechanisms
MENTAL HEALTH OUTCOMES
Optimum Functioning
Impairment of Social Role Functioning
Elevated Symptomatology
Diagnosable Mental Disorders

reciprocal. Basic personality structure, personal and family histories, socioeconomic characteristics, stressors, mediators, and mental health outcomes are seen as dynamically related and susceptible to interaction. We think this complex formulation provides a more helpful basis than the simpler version for modeling pathogenic processes found in the heterogeneous Hispanic population. Each component of the model can be expanded to reflect the unique characteristics of any individual, and relationships between patterned factors occurring in different components can be evaluated.

A person's ability to successfully adapt to constantly fluctuating environmental conditions depends on the transaction between external demands and individual coping resources. In stress modeling, the well-being of the individual is assured only if environmentally based demands do not exceed adaptive coping resources. These demands represent different types of stressors which excite the individual. Although complex neurophysiological processes involved in this transaction have been extensively documented (Hamburg et al. 1982), these materials are beyond the scope of this chapter. We are more concerned here with modeling environmental and psychological factors related to stress and coping that can be identified from our existing knowledge, or about which we can intelligently conjecture. Collectively, these factors form the "context" of mental illness, and we believe they form the basis for the next wave of research in Hispanic mental health.

Cultural Variations in Psychosocial Stress

The experiencing of stress is universal, but the unique relationship between individuals and their environments is culture-specific and motivates certain qualified observations about suspected etiological relationships. The primary role of major life change events in provoking stress disorders is explicitly recognized in the DSM III (Spitzer 1980), and the frequency with which such events occur among Hispanics, especially among immigrants, has been chronicled in both the popular and academic literature (Vega et al. 1983). However, the relative importance of life change events has not been reflected to date in the Hispanic mental health research literature, despite the recognition that relationships between individuals and their environments are powerful. For example, poverty, immigration, and ethnicity are particularly salient factors for Mexican-Americans, each of which may precipitate or buffer psychopathology, but little research has examined the independent contributions of each. Chapter 4 in this volume provides additional insights about this issue.

The social science (Durkheim 1967; Faris and Dunham 1939) and psychiatric literature (Fabrega 1969; Brody 1970; Favazza 1980) show that environments associated with ethnicity and poverty and combined with rapid social and cultural change, such as results from migration, are frequently characterized by social disorganization and personal pathology (Srole et al. 1978). Thus the mental health literature clearly identifies the Hispanic immigrant as being at high risk for general psychopathology (Cohen 1979; President's Commission on Mental Health 1978; Vega et al. 1984a) and behavioral concomitants (Shannon and Shannon 1973; Szapocznik et al. 1978). Yet, since poverty, immigration, and ethnicity do not, of themselves, produce psychopathology, we need to closely examine cultural variations, cognitive processes, and coping behaviors within Hispanic ethnic groups in order to more precisely identify factors associated with both stress and risk for mental illness.

Although not all Hispanics in the United States are immigrants nor of course is psychopathology restricted to those who are, the endemic nature of the immigrant experience in low-income Hispanic communities and its pervasiveness in affecting the lives of successive generations represent a phenomenon which deserves careful study. Immigrants are more likely to face profound severe and systematic stressors. The social stress model helps conceptually segregate factors and processes that confront Hispanic ethnic groups experiencing immigration and its accompanying social adjustments. These include variable environmental and personal dimensions such as cultural orientation, situational conditions, education, and income, as well as immutable traits such as gender and biological handicaps.

Such factors, in isolation, often have no etiological significance. As Price (1981) indicates, they are more accurately described as marker variables which permit us to outline the dynamics of the problem and permit a more rational basis for mental health research or intervention. For example, serious health problems and handicaps, which are more likely to be found in low-income populations, can exacerbate the impact of environmentally based stressors for individuals and family units, thereby increasing the risk of psychiatric disorder. Similarly, males with little education and low income living in overcrowded housing who are members of an ethnic-racial group that is the target of hostility and overt discrimination are disproportionately disposed to antisocial personality (Lunden 1964; Dohrenwend 1978). These marker variables can combine in numerous ways to form processes that could have etiological significance, although a particularly harrowing experience or profound life change could also result in reactive pathology quite independently. A social stress formulation can discriminate among these factors and provide the basis for modeling their time-ordered independent and combined effects. The literature concerning some of these stressors is reviewed below.

Life Change. Significant life change involves an interruption of lifestyle and requires innovative responses to stressful situations until a greater familiarity with the new environment can be acquired and new patterns of behavior can be established. This includes rapid transitions or events that affect the quality of life and impose a new set of environmental conditions and role relationships. Brown and Birley (1968), in studying the onset of schizophrenic episodes, concluded that the desirability of the change was less important than the strength of the emotion (positive or negative) provoked by the circumstances. Immigration, for example, may evoke many strong emotions. The uprooting from one nation and culture and subsequent transplantation to the United States require a massive adjustment in all spheres of life. An adult immigrant from Mexico to the United States faces major changes affecting family, workplace, social groups, and education, as well as legal and political status. Each of these changes represents a separate challenge and distinguishable source of stress, although in "real life" they may blend together to form a change in overall lifestyle. Disturbed ideation, psychobiological reactivity, and pathological behavioral outcomes (drinking, family violence, etc.) are quite commonly observed among low-income Hispanic immigrants experiencing a prolonged period of stressful adjustments.

Although immigration from one nation to another provides a classic case of stressful life change, cross-regional adjustments resulting from migratory movements common among Hispanic ethnic groups within the United States may be equally stressful. Such regional migration is usually stimulated by poverty and involves a search for work and a higher quality of life. Movement away from States in which Hispanics have a low median income and States with large Hispanic rural populations (New Mexico and Texas) to States with affluent urban centers (California and Illinois) have continued for decades. Nevertheless, Mexican-American migrant agricultural workers still constitute a large group experiencing endemic life change stress (Mines and Kearny 1982).

Aside from immigration and interstate migration, another category of life change includes traumatic events involving sudden, perhaps violent or unanticipated, change of personal circumstances. "Exit" events (those associated with the loss of family members or other loved ones), undesirable events, and threatening events may relate to the onset of depression. Indeed, Paykel (1974) has estimated that about 10 percent of all exit events are followed by depression. Accidents, deaths of intimates, severe illness, childbirth, and unemployment are examples of events that may threaten mental health. Although firm data are not available concerning the frequency of such events for various social and demographic groups in the United States, the frequency and impact of such events is likely to be greater among Mexican-Americans and other social groups that are economically marginal, transient, and employed where labor laws tend not to be enforced (Olmo et al. 1983).

There is some preliminary evidence of high levels of stress among Mexican-Americans beyond the upheavals caused by the immigrant experience alone. Mexican-Americans report high numbers of stressful events in epidemiological surveys, and those individuals experiencing more stressful events also report more psychiatric symptoms (Vega et al. 1985). For example, Mexican-American males have high rates of alcohol-related arrests, including arrests for drunk driving (Caetano 1984). Violent trauma is the second leading cause of death in Mexico, as well as along the U.S.-Mexico border (Navarro 1978). In addition, Mexican-Americans typically use hospital emergency rooms more frequently than Anglos (Cornelius et al. 1984) while Hispanic women exhibit higher rates of fertility than other women in the United States and have an extraordinary rate of unplanned pregnancies (Ventura 1983). Chapter 4 includes a discussion of the cultural meaning attached to some of these life events, which gives them their psychological significance.

Life Strain. This results from persistent dissatisfaction and frustration with marital, parental, household-provider, or occupational roles, including both the objective qualities of such roles and their subjective interpretation. Pearlin (1983) has identified six loci of life strain: (1) problems involving the nature of the tasks an individual is expected to perform, (2) intrapersonal problems with role sets, (3) intrapersonal problems resulting from participation in multiple role sets, (4) role captivity--i.e., being in an undesired role, (5) the gain and loss of roles, and (6) the restructuring and changing of roles within role sets.

Life strain, which is often engendered in part by low socioeconomic status, is typified by feelings of deteriorating self-esteem and self-mastery and the inability to find meaning in specific or generalized role relationships (Pearlin and Schooler 1978). Life strain and life events are obviously closely interrelated. Thus stressful conditions (e.g., marital dissatisfaction) can precipitate life events (e.g., separation and divorce), or life events can precipitate life strain.

A cultural basis for life strain is found in the socialization experience of Hispanics in the United States, which is conducive to intrafamilial conflict as well as to tension between Hispanics and the dominant society. Previous research (Pearlin 1975) indicates that disenchantment with conditions in the workplace often provokes depression in men whereas dissatisfaction in marital and maternal roles is more likely to bring on depression in women; thus the adjustment processes in these two areas are particularly important. For example, Pearlin (1975) concludes that large families and the presence of young children in the home, a prototypical situation among low-income Hispanics, are positively associated with depressive symptoms among mothers. Furthermore, this same research found an important link to depression between work outside the home and changing maternal roles among low-income women. For Hispanic men, depression may well be linked to marginal educational and English language skills which produce chronically stressful conditions of employment.

The expectations regarding appropriate role performance are less likely to be mutually agreed upon in Hispanic households than in other U.S. households because of the discrepancy between Hispanic and dominant culture role sets and norms of conduct. Among the sources of strain for immigrant families is the increasing demand for female labor, which frequently imposes a redefinition of sex roles and the domestic division of labor within the family (Ybarra 1982). This can produce a sense of loss of control among adult males and may result in conflicts concerning maternal roles among females. Another source of strain results from extended absences of fathers in many low-income immigrant or migrant families who may go off to search for work or to work in a distant location. Under such conditions, female-headed households--and even disrupted marriages--may result, with their associated psychopathology (Vega et al. 1984b).

Culturally based conflicts among Hispanic family members may also result from different patterns of socialization and between generations with differing paces of acculturation. Immigrant parents, as well as Hispanics that have migrated from rural to urban areas, frequently adhere to cultural styles and beliefs at odds with those of their children. Their children may find their parents' ways inappropriate and may question their parents' lifestyle and behavior. Moreover, children of immigrants frequently are more acculturated and may have far better English language skills than their parents. This situation can be a source of frustration and a vivid symbol of parental impotence. Under these conditions, signs of psychological distress may result from the parents' feelings of loss of control.

Given our limited knowledge (Ramirez and Arce 1981) concerning variations in the Hispanic family that affect normative integration, the impact of acculturation as a stressor in family relationships is difficult to assess. We lack firm empirical evidence concerning how Hispanic family styles may vary due to the effects of acculturation, region, and socioeconomic status. Although a tendency toward prescribed sex roles among low-income, marginally acculturated Hispanics is well-established in the literature, some recent research has tended to contradict this assertion (Zinn 1975; Hawkes and Taylor 1975; Cromwell and Ruiz 1979). Thus exposure to egalitarian role models may generate ambiguity and conflict. Increasingly, the notion of the long-suffering mother that silently endures any sacrifice for family members may be openly questioned (Canino 1982). Husbands and wives may fail to agree about norms of marital conduct and obligations or the appropriate division of labor in the household and parenting roles.

The nature of the strain surrounding parenting roles may depend on the ages of the children (Szapocznik and Truss 1978). Adolescent girls, for example, may insist upon the personal freedom that is normative in American culture and resist the double standard whereby their male siblings are granted greater personal freedom. This can lead to defiance of parental controls, including sexual experimentation and school truancy. Whether this represents acculturation stress or intergenerational cultural conflict, frequently the result is that the parents become very concerned with controlling their daughters' personal conduct in areas such as dress, makeup, and courting etiquette. Male children may also be affected by family-based cultural differences. Szapocznik et al. (1979), for example, report that a significant acculturation gap between parents and male children in Cuban families is an important marker variable predictive of drug abuse.

Since many Hispanic ethnic groups, such as Mexican-Americans and Puerto Ricans, are at the bottom of the occupational structure, primarily in blue-collar and service occupations, aggravating working conditions are another persistent source of strain for many members of these groups. Demeaning tasks, and physically exhausting and dangerous work situations, are normal for many low-income Hispanics. From sweat shops to farm labor, the style and pace of work exacts an enormous physical toll and reinforces the social marginality and powerlessness of the individual. Inadequate income may provoke choices in lifestyles and behaviors that are destructive to individuals and their relationships with one another. Life strain may also result from a generally poor physical environment. Living in overcrowded conditions where physical abuse and various forms of deviant behavior are commonplace often typifies Hispanic inner-city lifestyles.

Psychosocial Stress Affecting Mexican-American Immigrants

Although immigrants are not the only group within the Hispanic population at risk for severe life stress or related psychopathology, they constitute a group that is clearly at risk for numerous reasons. Although many traumatic aspects of immigration are similar for all low-income Hispanic populations, the following discussion emerges from observation of the Mexican-American experience. Readers seeking information specific to other Hispanic ethnic groups (Cubans and Puerto Ricans) should consult the respective literature (Canino et al. 1980; Szapocznik et al. 1977). The process of immigration typically involves a series of stages, each with a distinct combination of potential stressors. Based on an assessment of migratory movements among Mexican-Americans, as well as the literature on migration and mental health, we have identified the following as appropriate areas of research.

Point of Origin. The degree of stress surrounding immigration may depend on the motivations for emigrating, including whether the move is voluntary, the extent of agreement among family and friends concerning the necessity for the move, and the degree to which the natural support network of the individual is disrupted. Marker variables include the sociodemographic profile of the immigrants, their educational attainment, occupational skill level, and the accuracy of their perceptions regarding both the migratory process and the conditions to be encountered at the point of destination (Fabrega 1969).

The Migratory Passage. Traumatic events encountered, especially among undocumented aliens entering the United States from Mexico, can include harassment and abuse by the Mexican authorities, the physical and mental hazards of attempting to cross the international border undetected, and apprehension by U.S. Immigration and Naturalization Service (INS) officers. Clandestine border crossers risk robbery and assault, rapes and beatings. Some trips may take several days, leaving the immigrants physically and emotionally depleted. INS apprehends approximately 1 million aliens a year, many of whom show substantial levels of psychological distress. Thus stress related to immigration is a problem of considerable magnitude.

Immigrant Adjustment. Fabrega (1969) discusses a number of factors affecting acculturation, including degree of integration between minority and host cultures, presence or absence of mechanisms for correcting disturbances between cultures, and the rigidity of the respective cultural systems. On the level of personal adjustment, new immigrants face at least four types of strain, the impact of which varies according to demographic and personality factors, as well as the specific situation in which new immigrants (especially adults) find themselves. First, the need to immediately find work and generate income is a major stressor since it is a prerequisite for physical survival. Second, undocumented immigrants need to remain undetected, making them particularly vulnerable and exploitable. Third, many Hispanic immigrants encounter overt racism for the first time. Finally, the North American lifestyle itself is a source of disappointment and demoralization for many Hispanics. They may miss the socializing in the streets, for example, which is such a fundamental aspect of social life in Latin America, as well as an affordable source of recreation.

Culture-Based Use of Coping Resources

An individual's ability to buffer stress depends upon numerous endogenous and exogenous factors including the individual's personality and belief system and the availability of social support and health service resources. These mediating factors that relate to stress and mental health outcomes (some of which are identified in figure 1) can be used as design variables in a mental health model. Endogenous factors such as genetic and biobehavioral traits are also related to personality in that they influence a person's physiological reaction to stress (Eysenck 1967). However, since the input of the environment is affected by perception, which is in turn conditioned by socialization, we have a complex dynamic process.

Even the perception of a stressor as a threat that will trigger specific neurological and glandular activity presumes that social learning has occurred. The response to a stressor varies with the immediacy and magnitude of danger it appears to pose and the availability of coping alternatives. The perception of threat, the biobehavioral response, and the selection of coping resources to reduce or eliminate the stress are in some integral way culture-bound. For example, a testing situation can either produce so much stress in school children that effective performance is blocked or it can stimulate superior performance on the part of children who have been socialized to attain the appropriate cognitive control and to value competitive behavior.

A range of adaptive mechanisms is available to each of us, and these can be modified based upon environmental experience. This is the premise of social learning theory (Bandura 1977), which serves as the theoretical basis for most primary preventive health research in the United States. However, not all coping resources are equally amenable to transformation since some are rooted in our biological constitution, others in our personality structure, and the remainder in the environment.

Personal Coping Resources. Personal coping resources include the psychological and biological bases of behavior. Culture-based factors that affect psychobiological aspects of personality include diet, exercise habits, health care practices, and degenerative habits such as alcoholism, smoking, and drug abuse. Mexican-Americans are reportedly more likely to be overweight (Schreiber and Homiak 1981) and to have high sodium and saturated fat diets (Day et al. 1978) and less likely to engage in physical activity (Roberts and Lee 1980) than other Americans. To the extent that such social and culturally based practices affect optimal health and body image, they interfere with adaptive psychological processes and coping mechanisms.

Psychological aspects of coping behavior are also affected by such global cultural dimensions as belief systems, values, and learned cognitive patterns. These factors are addressed with increasing frequency in mental health research. Belief systems provide a comprehensive explanatory framework for thought and behavior. Many variations on the theme of supernatural intervention can be found in Hispanic culture. Faith in prayer and in practices intended to invoke intervention by religious figures or spiritual entities is commonplace in Hispanic cultures and provides a sense of security and well-being and constitutes a well-articulated process for reducing stress. Cuban immigrants who invoke the aid of santos, using magical practices drawn from the belief system of Santeria (Sandoval 1977), may have a greater sense of personal control over situational stress and a source of hope for resolving problems favorably. Parallel examples could be cited for all the major Hispanic ethnic groups from the literature (Garrison 1977; Vega 1980; Trottes and Chavira 1982).

Psychological coping mechanisms are also influenced by culturally based values, such as the desirability and appropriateness of addressing stress-laden situations and the volition to seek a resolution. A Hispanic woman may believe she cannot and should not confront her husband, even when his actions threaten her well-being or that of family members. Or conflicting values that lacking resolution may result in immobilization and increased symptomatology.

Finally, learned cognitive patterns--including mechanisms such as locus of control (Rotter 1966), self-efficacy (Bandura

1982), personal competence (Campbell et al. 1960), and self-esteem (Rosenberg 1965) vary across cultures. If Mexican-Americans tend (as has been discussed) to externalize the locus of control, then they may feel academic achievement, for example, is a matter that lies outside their personal control (Anderson and Johnson 1971). External locus of control may be linked to a lesser ability to mitigate the impact of stressful life events and a predisposition toward psychopathology (Lefcourt 1976). Similar cognitive patterns are seen in a form of learned helplessness and passive acceptance of victimization. We do not, however, have definitive evidence regarding the relationship between locus of control (regarding either positive or negative events) and cultural and socioeconomic factors within the various Hispanic ethnic groups.

External Coping Resources. External coping resources encompass natural support systems and formal support systems (including human services providers). Both can be pathways to solving problems and they are not mutually exclusive. The literature on Hispanic social support systems is vast, and chapters 3 and 6 in this volume deal specifically with the continuity and availability of social support to Hispanics. Since a positive relationship between social support and well-being is well established (Cobb 1976), the effectiveness of natural network support in the respective Hispanic ethnic groups needs to be determined. A growing body of evidence indicates that availability, use, and functions of natural networks are distinguishable (Gottlieb 1978) and are related to a number of cultural dimensions (Valle and Vega 1980). In addition, density of support networks and help-seeking behaviors may vary according to certain cultural and demographic factors (Keefe et al. 1979). Individuals reporting low levels of support and high stress are most vulnerable to psychopathology (Gore 1980). As discussed in chapter 6 of this volume, instrumental and affective social support may shield the individual from possible ill effects of stress to different degrees (Escobar and Randolph 1982); in addition exposure to high-stress environments may require people to provide more support to others than can be reciprocated, thereby draining the personal resources of persons who may already be at risk for psychological distress. Because these issues are discussed elsewhere in this volume, we will not discuss them in detail here.

Although a great deal has been written about the dynamics of the Hispanic family, little is known about what family patterns are healthy or pathological. Since most family research describes family dynamics in terms of the division of labor, family configuration or density, or appraisals of role content, we know little about the efficiency of family networks for offsetting stress (Warheit et al. 1982).

Extrafamilial natural networks have also been recognized in the Hispanic mental health literature (Valle and Mendoza 1978), but their availability, accessibility, and supportive functions are not well understood. Nevertheless, natural network providers have received consistent attention as important cultural adjuncts, and the literature on natural healers within distinct Hispanic ethnic groups has a long history and is still expanding. Mendoza (1980) has documented another type of natural helper, the servidora, which appears to have important instrumental functions in Mexican-American culture. Again, however, we need empirical studies to assess the mental health benefits derived from the use of such natural helpers.

Formal services providers include the spectrum of available health and human services providers. Several factors apparently influence whether such providers are used and with what regularity (Miranda 1976). Mexican-Americans have a well-known tendency to shy away from mental health providers, even when psychiatric services are available free of charge. Yet, low-income Mexican-Americans are willing to use public health clinics and will take advantage of mental health services provided by these clinics. This indicates that the use of formal mental health facilities and services is--at least in part--culturally based behavior and that utilization increases significantly when culturally sensitive staff is available (Lopez 1981). Furthermore, the extensive somatization documented (Mezzich and Raab 1980) in Hispanic populations apparently leads to a disproportionate use of general medical providers for treating psychiatric disorders.

This Hispanic mental health literature identifies a number of barriers that could be responsible for the low utilization of mental health facilities (Barrera 1978). These include racism, discrimination, and cultural-linguistic insensitivity on the part of mental health service providers exhibited in the personal attitudes and behavior of staff, in policies that operate to exclude Hispanics, or the inadvertent result of inadequate training of staff. Prohibitive costs, unavailability of health insurance, and the physical inaccessibility of clinics are other factors that decrease their usage by low-income Hispanics. Still other impediments to services are at least partially based on cultural factors: a stigma attached to persons seeking such services, inappropriateness of treatment, absence of referral networks, and even the possibility that some Hispanics may choose to tolerate deviant behavior among family members in preference to referral for treatment or institutionalization.

On the other hand, the notable success of some mental health providers in attracting Hispanic clients should motivate research to determine the reason for their success. In particular, we need to look at the critical initial contact between client and provider that too frequently ends in premature termination of treatment (Miranda et al. 1976).

Defining the Content of Mental Illness

The outcomes in social stress modeling are generally presented in terms of symptoms, disorders, and their related behaviors. Trying to define and measure such outcomes presents several major dilemmas for cross-cultural mental health researchers and practitioners. First, should we try to define and measure a generic "mental illness" phenomenon or should we try to assess the presence of specific mental disorders? Most research has been of the former type, using general symptom screening scales that focus primarily on anxiety and depression. A drawback is that such scales are more sensitive to the kinds of symptoms that are more prevalent among women and are less sensitive to the kinds of antisocial or substance abuse symptoms that are more common among men. Further, given that different etiologies and treatment and prognosis patterns may be associated with different types of disorders, the measurement of nonspecific symptoms is of limited value in understanding many clinical concerns and issues.

Therefore, mental health researchers have more recently tried to develop more disorder-specific measures. These attempts depend on the clinical community developing a classification scheme that precisely defines discrete psychiatric disorders (Hough 1981). In turn, rigorous definitions of mental disorders would allow the development of the measurement necessary for more precise clinical and field studies and would allow the detection of relationships between discrete mental disorders and genetic, biobehavioral, and psychosocial factors.

First, however, the research and clinical communities must agree upon symptom parameters and configurations for "formal" psychiatric disorders, as well as for culturally specific disorders. After accomplishing this monumental task, we could then improve diagnostic measures and move forward in our etiological modeling. An important step in that direction has been the development of the behavioral criteria for mental disorders found in DSM-III and similar diagnostic systems. However, the resulting measures such as the DIS, the Schedule for Affective Disorders and Schizophrenia (SADS), and the Present State Examination (PSE) are difficult and cumbersome to administer if one is interested in the full range of mental disorders.

Thus far, we have described problems in defining the mental health outcome variable that all researchers and clinicians face--essentially those of classification and measurement. Cross-cultural researchers face not only these issues, but the additional problems imposed by variances across cultures. The nosological question becomes one of agreeing on a classification scheme that precisely identifies specific mental disorders across cultures; while the measurement problem is whether these criteria can be translated into assessment instruments that are valid and practical to use across cultures.

Although we cannot address in detail the issues involved in cross-cultural diagnostic classification and assessment in this chapter, we can comment on the significant progress being made. The durability of the DSM-III diagnostic categories is being examined through a series of Epidemiologic Catchment Area Research Projects (Eaton et al. 1981; Hough et al. 1983), and both the DSM-III and the DIS are being used in a large number of studies in Asia, Latin America, and Europe. In addition, the Division of Biometry and Epidemiology at the National Institute of Mental Health and World Psychiatric Association are backing the development of a new international classification scheme incorporating many elements of the DSM-III.

These efforts are accompanied by appropriate recognition that the problematic issues of specifying durable diagnostic categories across cultures cannot be easily resolved. However, such efforts imply a large degree of acceptance of the assumption that psychiatric disorders have the same basic content across cultures and the attendant assumptions that there are (1) common biological causal agents, and (2) universal or nearly universal symptom manifestations and patterns of illness. To the degree that we believe culture influences the content of mental disorders, these assumptions cannot be uncritically accepted. If, in the extreme case, they cannot be accepted at all, numerous diagnostic measures would have to be formulated, and meaningful comparisons of mental health research across cultures would be nearly impossible.

Reality probably lies somewhere between the extremes of strict cultural relativity and universality. A voluminous literature suggests that culture contributes both to the context and content of mental illness. Representative recent work can be found in Mezzich and Bergenza (1984) and in recent issues of The Journal of Cross-Cultural Psychiatry. As discussed previously, cultures may produce different types of role strain and situational stress, as well as culturally sanctioned coping methods that provide a general context for risk of mental illness. A Mexican-American woman who is socialized to believe that she must endure extended absences by her husband and must minimize her movements outside of the home during his absences will find it difficult to displace her frustrations and satisfy her own emotional needs. Presumably her needs must either be held in abeyance or satisfied through informal sources of social support. If these coping resources prove inadequate, a number of psychiatric complaints or disorders could set in, ranging from mild symptoms or somatic disorder to severe withdrawal.

Evidence of cultural content in mental illness is also exemplified by the issue of symptom manifestations. This is important since psychopathology in Western society includes symptoms such as thought disorders, behaviors, and dysfunctions. Although significant evidence points to genetic linkage of certain traits, such as those found in the schizophrenia disorders, we cannot summarily classify specific forms of ideation and behavior as illness if they are not perceived as abnormal by either the person manifesting them or by the subculture within which they are occurring. For example, Hispanics often hear voices or see personages no one else can hear or see. Such "hallucinations" are core symptoms of schizophrenia using DSM-III criteria, yet such experiences are common to Hispanic ethnic groups in the United States.

On the other side of this issue, culture-specific "folk" disorders could go undetected using a structured protocol such as the DSM-III. Such disorders have been broadly discussed in the literature, as have the belief systems within which they are nested. Symptoms of these "folk" disorders, such as "nervios" among Mexican-Americans, may indeed overlap with one or more disorders found in the DSM-III or other medical protocols.

Beyond differences in the structure of mental illness across cultures, appropriate diagnosis requires accurate information about problem presentation. The signs and symptoms presented by individuals of different cultural orientations can have very distinct dynamics and can mask different syndromes. For example, Hispanics tend to report a high prevalence of symptoms (Dohrenwend 1975; Vernon and Roberts 1982; Burnham et al. 1984), yet their rate of experiencing diagnosable mental disorders appears to be no higher than similar sociodemographic groups. Many other subtle differences in temporal orientation and somatization have been noted, including a pronounced tendency for Hispanics to identify numerous physical complaints.

Without going into great detail, we must also take into consideration the relationship between symptoms of mental illness and acculturation. Individual members of a complex cultural group such as the Mexican-Americans are likely to have a broad range of expressions concerning the content of thought and mood disorders. For example, a Mexican-American who believes she is the victim of a brujeria (witchcraft) may exhibit "symptoms" of distorted ideation, anxiety, loss of control, or blunted affect which may be related to differences in socialization rather than to any mental disorder. Yet another Mexican-American presenting a similar symptoms complex may be schizophrenic. Such differences reflect more than just degrees of exposure or loyalty to different cultural orientations. They also indicate differences in cognitive coherence in transactions with a multicultural environment.

Acculturation is a synergistic process, whereas synthesis and bonding of cognitive styles and thought patterns is idiosyncratic and experience based. Thus the effect of acculturation on belief systems is neither uniform nor easily predicted based solely on birth and cultural orientation. For example, third-generation Hispanics in this country may harbor deep-seated beliefs in the supernatural which influence their cognitive processes, despite outward adherence to rational scientific beliefs. Conversely, an immigrant from Mexico may dismiss such beliefs as unfounded superstition. Although these examples are purposely atypical, they illustrate that forms of ideation, including pathological manifestations, are the product of complex social psychological processes. Sensitivity to these nuances requires knowledge about culture and its psychodynamic effects on personality. We must assume that specific symptoms occur and cluster in order to achieve any taxonomy regarding normal and abnormal mental states, and such redundancy is in fact observed in both field research and clinical experience. However, we are still searching for a better understanding concerning the dynamics underlying these disorders and their cultural causes.

In summary, the problem of defining mental illness and accurately measuring it across cultures is hindered on one side by the absence of consensus regarding taxonomy, and on the other by the paucity of research tools that could bridge the chasm between cultures or gauge the degrees of difference or compatibility among them. "Mental illness" historically has had an elastic boundary line, and the classification issue is far from settled (Srole and Fisher 1980). For instance, we still don't know whether the process of mental disorder is more accurately portrayed by a threshold or a categorical model. Recent efforts to establish precise diagnostic measures which purport to identify psychiatric disorders are (to some unknown degree) arbitrary when used cross-culturally, yet they clearly reflect the need for standardization. Although we need to develop systems of classification, we must not uncritically accept subjective constructs and imbedded value judgments until we better understand their implications.

Ultimately, the value of diagnostic data really depends on the uses to which it is put. Most stress research arguably does not require this level of specificity and, given the state of the art, the current generation of diagnostic instruments may be inappropriate for wide application in mental health stress research. Although the research questions should dictate the type of research design and instrumentation required, the complexity of using diagnostic measures will probably minimize their use except in exceptionally well-supported research investigations.

Conclusion

This chapter has presented a new perspective for conducting research in Hispanic mental health by reviewing some pertinent issues in the field. The complexity of the problem is enormous. We must discover patterns that precipitate dramatic changes in psychiatric status, cognitive responses, and role performance. In so doing, we will sharpen our focus concerning the relative magnitude of risk posed by various factors, and their contribution, if any, in the etiological process. Since most psychiatric disorders have multiple etiological agents and many disorders are not discrete, we must do our utmost to specify the factors, processes, and chronology associated with both pathogenic and nonpathogenic outcomes.

We can think of the stress induction-stress reduction process as culturally imbedded within a series of cognitive and behavioral contingencies. Thoughts and behaviors have repercussions; thus a contingency can become a departure point for the individual when that person begins to manifest non-normative behavior and as a result receives differential treatment. As we have seen, the repertoire of every individual includes historical experiences, material resources, cultural explanations, psychological defenses, and personal supports that condition both perceptions and responses to specific stressors. Stress modeling should be sensitive to these points of contingency that alter the role status and functional capacity of the individual within their cultural group and which set in motion a reorganization of the self that can have pathogenic implications.

The most challenging aspect of accurate modeling involves the interactions of the pathogenic process. The problem of establishing the sequence of various factors is fundamental to sorting out relationships between factors. Cross-sectional research in Hispanic mental health has been insufficiently comprehensive to date in addressing these important issues, and prospective designs are called for. The reader is encouraged to review the related issues in this volume for insight into this area. Chapter 2 begins by describing what we already know about the distribution of symptoms and should take into account when designing future research with Hispanic populations.

The cross-cultural nature of Hispanic mental health research underscores the need to pay attention to differences in perception, coping styles, and belief systems that can be attributed to differences in socialization and how these differences may be affected by level of acculturation. Similarly, Hispanic mental health providers cannot focus exclusively upon formal disorders, ignoring the culture content in psychopathology. To do so would overlook the bulk of symptoms and behaviors which seriously deteriorate the well-being of Hispanic individuals and families and form the primary demand for remedial services.

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CHAPTER 2

MENTAL HEALTH ISSUES IN THE HISPANIC COMMUNITY: THE PREVALENCE OF PSYCHOLOGICAL DISTRESS

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This chapter summarizes the epidemiological research findings on the prevalence of psychiatric symptoms among the Mexican-American population. This involves reviewing the scope and methodological limitations of field studies reported in the literature. Because an important focus of this volume is stress research modeling, we also discuss theoretical and design issues as they relate to examining psychopathology among Hispanics. We also make recommendations for future research in this area.

The effort to determine the prevalence of psychiatric disorder in the general population is relatively new. Historically, most psychiatric epidemiological studies were based upon populations in treatment. This resulted in significant underenumeration as became especially apparent during World War II when potential draftees were given a brief psychiatric examination as part of the preinduction process. These examinations revealed much higher rates of mental disorder than had been reported by epidemiologists using treatment rates as a data base (Stouffer et al. 1949). Investigators thereafter began conducting field surveys designed to measure the "true prevalence" of psychiatric problems in the general population (Srole et al. 1962; Leighton et al. 1963). These early studies, which relied primarily on short screening measures to assess the prevalence and severity of mental disorders, have been criticized in recent years for their relatively low level of diagnostic sensitivity (Weissman and Klerman 1978; Dohrenwend et al. 1980b).

Despite such criticisms, several psychiatric symptom and dysfunction scales have been tested for validity and reliability and have been used successfully in a large number of field studies throughout the United States. Indeed, almost all the field studies carried out with Mexican-American populations have used these measures, and their value for research that does not require specific diagnostic judgments has been repeatedly demonstrated. These screening measures are short, as well as relatively simple and inexpensive to administer. Furthermore, they clearly have value for planning and evaluating mental health services at several levels. Further, as discussed in the next chapter, there is compelling evidence that these measures tap those conditions most commonly associated with psychosocial stress, i.e., depression and anxiety.

The usefulness of diagnostic-type estimates of the prevalence of psychiatric disorders has led to the development of research instruments designed to provide such estimates from field survey data. These case identification methods will undoubtedly provide more precise enumeration of specific psychiatric disorders. In addition, since most large-scale epidemiological research conducted in the United States today uses the Diagnostic Interview Schedule (DIS) developed under the auspices of the National Institute of Mental Health (Robins et al. 1981), the findings will be amenable to a more systematic testing of the reliability and validity of the instrument than was previously possible.

Unfortunately, even these more applied systems of classification and enumeration do little to improve our understanding of the etiology of mental disorder. This important research area awaits other research designs and advances in related fields of scientific inquiry (e.g., genetics and psychopharmacology) before more definitive etiologic determinations can be made. Pending such developments the screening measures reported below provide us with a portrait of mental health problems in the Mexican-American community and constitute a valuable evaluative standard for reviewing findings from past research, designing future investigations concerning the "problem complex" associated with psychological distress, and conducting needs assessments.

Contemporary Knowledge Concerning Psychopathology in the Mexican-American Community

Data on the mental health status of Mexican-Americans are almost exclusively based on the use of nondiagnostic symptom indexes. These fall into two distinct categories--measures of affect and measures of psychophysiological distress, although the latter may also include subscales that tap affective states. The scales used most often with Mexican-American populations focus on depressive mood, and variations of these scales that include somatic symptoms.

We have summarized eleven such studies along a number of critical dimensions, including type of instrumentation (see table 2-1). Since most of the studies have used different measures, the mean scores are not comparable and are only presented to provide an indication of the symptom distribution for ethnic groups within each field study. The "caseness rates" identify the percentage of

Table 2-1. Summary of contemporary research on nonspecific psychopathology among Mexican-Americans

Study Number*	Site and Sample Characteristics	Measure	Mean	Caseness Rate	Investigators**
1.	Houston, Texas	Langner			Antunes et al. 1974
	Anglos		3.9	44.4	
	Mexican-Americans		2.7	30.1	
	Blacks		2.5	25.0	
2.	El Paso, Texas	Langner			Burnham et al. 1984
	Anglos		1.2	NA	
	Mexican-Americans		2.0	NA	
3.	El Paso, Texas	Distress Index			Mirowsky and Ross 1980
	Mexican origin		11.7	NA	
	Non-Mexican		13.1	NA	
4.	Houston, Texas	Angst Index			Gaitz and Scott 1974
	Anglos		8.6	NA	
	Mexican-Americans		7.2	NA	
	Blacks		6.3	NA	

Table 2-1 continued

Study Number*	Site and Sample Characteristics	Measure	Mean	Caseness Rate	Investigators**
5.	Texas	Zung			Quesada et al. 1978
	Mexican-Americans		37.82	24.7	
	Blacks		41.41	39.1	
6.	Los Angeles, Calif.	CES-D			Frerichs et al. 1981
	Anglos		8.5	15.6	
	Hispanics		10.6	27.4	
	Blacks		10.5	21.8	
7.	Santa Clara, Calif.	Depression Index			Vega et al. 1984
	Anglos		11.61	11.9	
	Mexican-Americans (Spanish-speaking)		16.57	27.1	
	Mexican-Americans (English-speaking)		12.40	15.5	
8.	Alameda, Calif.	CES-D			Vernon and Roberts 1982
	Anglos		NA	14.6	
	Mexican-Americans		NA	28.9	
	Blacks		NA	18.1	

Table 2-1 continued

Study Number*	Site and Sample Characteristics	Measure	Mean	Caseness Rate	Investigators**
9.	Alameda, Calif.	Depression Index			Vernon and Roberts 1981
	Time 1				
	Anglos		11.56	14.06	
	Mexican-Americans		12.99	20.21	
	Time 2				
	Anglos		13.43	13.96	
	Mexican-Americans		14.40	18.13	
10.	Santa Clara, Calif.	HOS			Vega et al. 1985
	Anglos		25.83	5.5	
	Mexican Americans (Spanish-speaking)		28.63	15.4	
	Mexican Americans (English-speaking)		25.89	6.6	
11.	Fresno, Calif.	HOS			Vega et al. 1985
	Mexican American Farmworkers:				
	Males		27.77	19.9	
	Females		28.43	19.2	

*As referred to in text. **See references, p. 47.

respondents that scored above a symptom threshold considered to be significant within the criteria of that particular study, but these should not be interpreted as representing a "case" with diagnostic (i.e., clinical) referents.

To date, the most widely reported measure has been the Langner 22-item screening measure, a psychophysiological distress scale, or measures derived from it (Langner 1962). In fact, of the eleven studies reported in table 2-1, four have used the Langner in some form, and the remainder have used the Health Opinion Survey (HOS) (MacMillan 1957) or various depression scales. For one of these studies, Mirowsky and Ross, no actual rates were reported; therefore the mean scores reported in table 2-1 were predicted from the researchers' statistical model for low education level respondents.

The relatively small numbers of Mexican-Americans in the reported samples and the regional distribution of the research sites in table 2-1 are relevant since both factors limit our ability to generalize about the data. Most of these studies were based on only a few hundred Mexican-American respondents, making analysis of subgroups using multiple controls virtually impossible. Therefore, most of these studies are limited to reporting differences in symptoms at the aggregate level, with ethnicity and socioeconomic status being the most common variables analyzed. Moreover, all eleven studies were conducted in only two States, Texas and California, and almost uniformly with urban populations. This limits our ability to draw conclusions about regional variations in symptomatology and about relationships between social structure and cultural integration in the genesis of psychopathology among Mexican-Americans.

This point is underscored by the differences in findings between surveys conducted in Texas and California. Although the measures are not totally comparable, they are sufficiently similar to provoke speculation regarding the differences in reported prevalence of symptoms between Mexican-Americans and Anglos. All but one of the Texas studies report higher symptom levels for Anglos than for Mexican-Americans, while all of the California studies report the opposite (although such differences are greatly attenuated when the ethnic groups are standardized by socioeconomic status). Whether such variations really exist or are a methodological artifact remains to be demonstrated.

The Hispanic Health and Nutritional Examination (HHANES) is an important step in overcoming this limitation in that it encompasses all Hispanic ethnic groups in virtually all areas of the country and will provide data on depressive symptomatology based on the Center for Epidemiological Studies' Depression Measure

(CES-D) with a total sample size large enough to permit detailed analysis. The Los Angeles Epidemiologic Catchment Area Project (Hough et al. 1983) will also report both prevalence and incidence data using diagnostic (DIS) and nondiagnostic symptom checklists in the near future. These findings will greatly increase our understanding of the distribution of psychiatric signs, symptoms, and disorders within Hispanic populations in the United States. They will also improve our understanding of interrelationships between stressors, social support, and psychosocial risk factors associated with mental disorders in these ethnic groups.

In order to explain these findings, multivariate designs typically analyze various sociodemographic variables in order to determine their relative contribution to symptomatology. Most frequently, these sociodemographic factors are stated as independent variables, and the prevalence of symptoms (or disorders) are stated as the outcome, or dependent variable. This is consistent with social stress modeling in that demographic variables are considered antecedent factors which may be implicated in psychopathology. For example, a disrupted marital status is a stressor that is proximal to symptomatology, whereas the relationship between low educational attainment and certain symptoms (or disorders) is distal but powerful, and may be mediated by cultural and structural factors.

The level of "explained variance" reported using these relatively simple analytical designs rarely exceeds 15 to 18 percent, indicating that their combined impact is important but not etiologically conclusive. This relatively low explained variance indicates that we must consider other factors within more comprehensive designs in order to explain differences in mental health outcomes. These additional factors include those identified in the clinical, epidemiological, and sociocultural literatures as being linked to increased risk for mental disorder. Some of these are reviewed in chapter 1, and we comment on them further in the following section of this chapter.

The Role of Sociodemographic Variables in the Prevalence of Symptomatology among Mexican-Americans

The extant data base on symptomatology among Mexican-Americans reveals that several sociodemographic factors influence the risk level of Mexican-Americans. These are identified and discussed below. (Note that the studies referred to by number are those cited in table 2-1.)

Sex. Given the inherent limitation posed by small sample sizes, many of the studies of psychopathology among Mexican-

Americans fail to present separate analyses for males and females. The most direct evidence of a relationship between psychopathology and gender is found in studies 7 and 10, which report a statistically significant difference in depressive symptoms between Mexican-American men and women. Women had higher symptom rates than men when the data were controlled for acculturation level. This difference in gender-specific rates of affective symptoms concurs with findings reported for virtually all subpopulations in the United States (Dohrenwend et al. 1980a).

Education. Those studies reporting data on the relationship of education to psychopathology consistently demonstrate an inverse relationship between education and symptoms (see studies 5, 7, and 10), although the findings in study 3 suggest that education may not be as important a predictor of symptomatology among Mexican-Americans (in Texas) as it is among Anglos. Field studies from throughout the United States have generally reported an inverse linear relationship between education and symptoms of psychological distress (Dohrenwend and Dohrenwend 1969), and most of the studies in table 1 report few differences in symptom levels between ethnic groups when educational levels are standardized.

Age. Overall, the most general pattern for age reported in these studies is a bimodal distribution of symptoms (see studies 4, 5, and 7). This contrasts somewhat with the tendency of Anglo populations to be at greatest risk for symptoms of depression in early adulthood, normally between the ages of 18 and 30. Therefore, the pronounced increase in symptoms for those in middle life and beyond reported in several studies of Mexican-Americans is unique (see studies 4, 5, 6, and 7). Studies 7 and 11 suggest that increasing symptomatology among Mexican-Americans in later life relates to marginal acculturation, foreign birth, and minimal educational achievement.

Acculturation Level. Very little information is available on the relationship between acculturation and mental health among Hispanics. Studies 7 and 10 report markedly higher symptom levels among Mexican-Americans who predominantly speak Spanish, but this language factor is also highly intercorrelated with lower socioeconomic status and immigrant status. Nonetheless, this study indicates that symptom levels remain slightly higher throughout the range of educational achievement for Spanish-speaking Mexican-Americans (who are primarily immigrants) when contrasted with both U.S.-born Mexican-Americans and Anglos. Clinical research suggests that immigrants are more likely to exhibit signs of severe psychiatric disorder (Fabrega et al. 1968), but this issue is far from settled.

Marital Status. Studies 5, 7, 9, and 10 suggest that Mexican-Americans who are currently married are more likely to have lower symptom levels than Mexican-Americans in disrupted marital statuses. Studies 7 and 10 report very high symptomatology for those who are separated, a finding that holds across ethnic categories. In contrast, study 3 indicates that marital disruption does not produce the same degree of risk for Mexican-Americans (again in Texas) as it does for Anglos. These findings may stem from differing definitions of marital disruption, or perhaps differences in cultural integration that characterize the study sites.

Income. Given the well-known association between education and income (Dohrenwend and Dohrenwend 1969), one would expect to find an inverse relationship between socioeconomic status and symptomatology, but such data have not been explicitly documented in these studies. Moreover, the convergence of the findings on this issue are in accord that an inverse relationship between socioeconomic status and symptomatology exists and attenuates differences between ethnic groups in cross group comparisons. Study 11, which reports data on a very homogeneous group of low-income Mexican-American farmworkers, also provides comparisons with other national studies using the HOS, and clearly indicates that income is the best predictor of symptoms.

Summary. Most of the eleven studies reviewed are descriptive and were not designed to test specific hypotheses. Given the small sample sizes and the relatively meager evidence available on each of the demographic variables discussed above, more descriptive studies would be useful. Regrettably, experimental and quasiexperimental designs are not available. As a result, we have limited knowledge concerning the direction and strength of relationships between factors typically included in stress modeling. For the moment, we must work within the constraints of this imprecision and, we hope, improve on this situation in the future.

Other important research design issues and questions also remain unresolved in assessing Hispanic mental health. For example, we cannot yet tell whether ethnicity is a significant independent predictor of psychopathology. The studies cited were carried out in Texas and California, regions with quite distinct historical, sociocultural, and structural characteristics. Thus we are not surprised that differences in the prevalence of symptoms have been found within populations sharing the label Mexican American. We may logically conclude that the prevalence of symptoms among Mexican-Americans varies in distribution as it does among other ethnic groups about which we have more complete information. Those who are most marginal to the society in which they reside (e.g., the poor, the minimally educated, and the socially segregated) are also more likely to exhibit symptoms. Similarly, those individuals experiencing stressful situations (such as marital disruption) could be expected to exhibit higher symptom levels. This is a central assumption of stress modeling.

Since the studies cited are limited to reviewing static associations of symptoms with various demographic variables, our understanding of the complex web of mediating relationships underlying these findings is quite restricted. The following illustration portrays this relationship:

Independent Variables:		Dependent Variables:
Ethnicity, age, sex, socioeconomic status, etc.	-----►	Mental health outcomes

Undoubtedly, numerous factors mediating these time-ordered relationships escape our notice at this gross level of analysis. Thus we want to expand the social stress model to capture the effects of these mediators.

Issues and Opportunities in Undertaking Hispanic Mental Health Stress Research

Although no single investigation can incorporate into the logic of its design every potential interaction or foresee every confounding factor, a review of the most studied relationships as well as applicable methodological techniques has the advantage of discovering carefully developed instrumentation and a body of knowledge for comparative analyses. As indicated in figure 1 of chapter 1, stress modeling includes stressors, mediators, and outcomes that require careful measurement. This can best be done by incorporating them into the design of the study. After the data are collected, the strength of relationships between various potential indicators of stress and mental health outcomes can be tested, and if longitudinal data are available causal inferences can be made. When information is available on mediating factors such as structural and cognitive dimensions of social support (see chapter 3), these can be statistically manipulated to determine their role in ameliorating the impact of stress on psychopathology. Although these relationships are simply stated, the actual specification, measurement, and statistical treatment of these variables is complex and expensive to perform. This undoubtedly explains why we have so little research of this type regarding Hispanic ethnic groups.

The assumption that life change events or demographic factors can be shown to "cause" psychopathology has provoked criticism which cannot be ignored since it can also be postulated that mental disorders are antecedent to demographic statuses such as disrupted marital statuses, low income or marginal acculturation. Most of the epidemiological evidence reports relationships between sociodemographic factors and the point prevalence (one moment in time) of psychological symptoms. This restricts our ability to distinguish cause and effect interactions because of the limitations in detecting the order, direction, and strength of relationships among variables. Indeed, the decades-long debate regarding social selection versus social causation in producing mental disorders among immigrants (see chapter 4) indicates that this primary research question in psychiatry remains unresolved.

Although little stress research has focused on Hispanics, we can look at a few major measurement issues observed in research covering other ethnic groups. Researchers have used numerous strategies in an effort to fine tune the assessment of complex constructs in terms of discrete effects. For example, Pearlin (1983) has grouped life events as scheduled (normative) and unscheduled (non-normative) events, while Paykel (1974) designates the loss of a significant other as an "exit" event. Another strategy is to combine stressors to provide a measure of their cumulative effects. Other researchers have attributed a "valence" to life events and have measured their perceived impact. Interlocked with the issue of life events is the consideration of life strain, since both may produce independent or combined effects. The measurement of strain should be domain-specific, sensitive, and sufficiently comprehensive to cover the span of role relationships.

Social support is difficult to model for similar reasons. First, it is a multidimensional concept encompassing extrapsychic (structural) and intrapsychic (cognitive) facets. Second, the direction, function, and strength of supportive relationships are difficult to measure and interpret since social support networks have been associated with both reduced and increased symptoms and dysfunctions. Third, we need to know how stress, social support, and mental health outcomes are interrelated, since the presence of a disorder could heighten the risk of experiencing more life events as well as the loss of social support. Thus researchers must carefully plan design specifications in order to disentangle the direction of relationships and temporal sequences.

In an effort to improve analytical rigor in stress research, prospective designs are increasingly being used. The number of variables specified in this type of research often requires complex statistical procedures, such as factor analytically based multivariate techniques in addition to the usual lower level tests. Since the number of potential relationships that can be tested is vast, the researchers must carefully review those most likely to clarify the central assumptions in the research design.

For example, the following appears to be a straightforward statement of relationships between independent, mediating, and dependent variables:

Life events —► social support —► mental health outcomes.

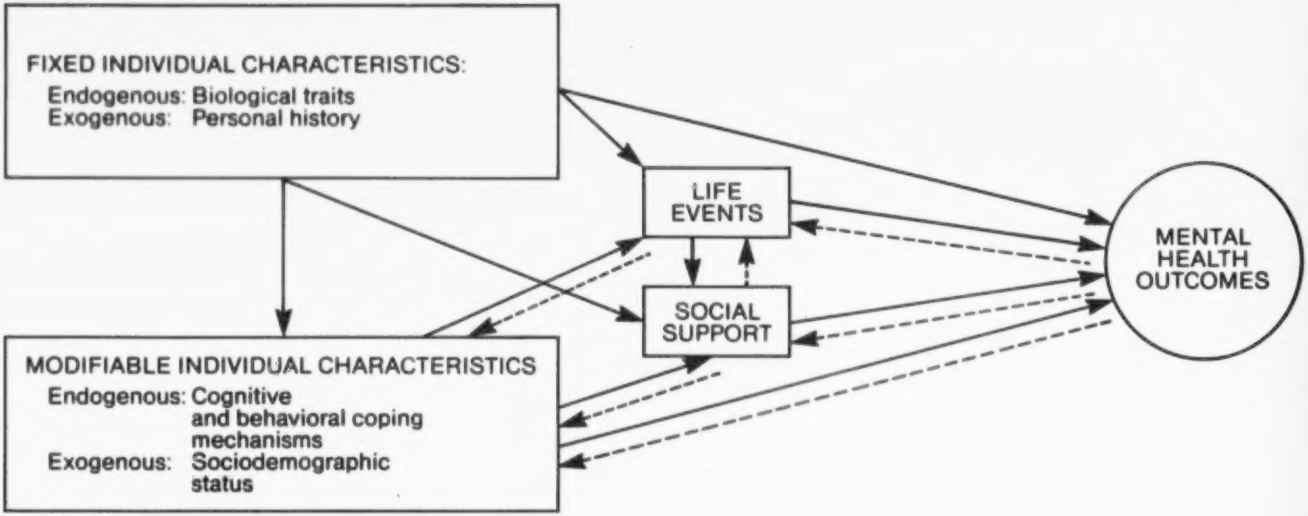
Yet this statement is confounded by the many types of life events, temporal factors, many forms of social support, and multiple mental health outcomes that typify people with quite distinct sociodemographic characteristics. The problem of sorting out important relationships requires meticulous attention to intuitive formulation of process variables, modeling statistical interactions, and recognition of the limitations of the data. Furthermore, information about the temporal sequencing of variables is needed to establish the primacy and reciprocity of interactions.

Figure 2-1 restates the previous formulation showing the wide range of potential interactions between factors. It depicts an increased number of relationships and also shows feedback between factors. Since each factor represents a cluster of possible variables, such an analysis could be extensive.

As previously noted, a number of cognitive constructs have recently been introduced into stress research. These constructs include mastery, personal competence, locus of control, self-esteem, and denigration (see chapter 1). These factors, often modeled as personal coping resources, are believed to mediate stress and social support. These constructs could be categorized as "modifiable individual characteristics" (see figure 2-1), since they are not presumed to be immutable traits. This expanding exploration into the role of cognitive processes in the mediation of psychopathology is provocative and underscores the far-reaching implications of stress modeling for many types of research with Hispanics.

For researchers interested in Hispanic mental health, we offer an agenda of high-priority research issues. Much of the stress research cited in this volume should be duplicated with Hispanic populations using comparable inventories and scales. However, given the obvious cross-cultural issues involved in Hispanic mental health research, investigators should design innovative strategies that take into account the range of acculturation that typifies the Hispanic ethnic groups.

FIGURE 2-1.
Diagram of
Factorial Relationships Affecting Mental Health Outcomes


FIXED INDIVIDUAL CHARACTERISTICS:
Endogenous: Biological traits
Exogenous: Personal history
LIFE EVENTS
SOCIAL SUPPORT
MENTAL HEALTH OUTCOMES
MODIFIABLE INDIVIDUAL CHARACTERISTICS
Endogenous: Cognitive and behavioral coping mechanisms
Exogenous: Sociodemographic status

Future research should also give priority to several deficiencies in the literature. First, we know virtually nothing about psychopathology and related developmental issues among Hispanic children and adolescents, despite recent evidence that levels of psychological distress among young people are much higher than previously believed (Kaplin et al. 1984). An entire monograph could be devoted to this topic alone. Second, we need to identify culture-specific coping patterns (culturally sanctioned beliefs, behaviors, and practices) that either buffer or place people at risk for specific negative outcomes—for example, whether a culturally based "learned helplessness" syndrome exists among marginally acculturated Hispanic women. Third, we need to discover patterned relationships that link psychological traits to coping behaviors since these are likely to affect levels of stress, social support, and mental health. For example, we might study the relationship of perceived alienation to antisocial behavior, including child and spousal abuse, and mental health outcomes. Another area of interest would be the study of locus of control in relationship to school failure, behavioral disorders, and mental health outcomes.

Another area of investigation in Hispanic mental health that could be incorporated into stress research with important results is the collection of family histories, including the presence of mental disorder or premorbid signs. This type of information would permit us to assess social and environmental factors associated with the transmission or etiology of certain diagnostic-level mental disorders, such as depression, bipolar disorder, and schizophrenia. This has never been done systematically in Hispanic mental health research.

As discussed in chapter 1, the question of appropriate measurement of psychiatric phenomena is complex. Diagnostic measures tend to be long, expensive to administer, and difficult to analyze. Their value for identifying case-level disorder is compelling when the specific aims of the research demand such sensitivity. It is possible to use only those sections of diagnostic protocols that tap dimensions of interest in the research, such as major depression. The diagnostic measures have an additional advantage in that they can be used as either a categorical measure (caseness-noncaseness) or as a continuous measure with adjustable thresholds. This is a powerful asset when doing research with populations having widely varying levels of acculturation. Unfortunately, we know little about the usefulness of these measures for assessing the mental health status of children, especially across cultural-linguistic groups.

In this brief overview we have attempted to summarize our knowledge concerning the prevalence of psychiatric symptoms in the Hispanic community. Since the current data bases have serious limitations, we can only begin to broadly outline some outstanding factors that should be taken into account in undertaking future research in Hispanic mental health. Having reviewed the literature, we know there is a need for innovation. The subsequent chapters in this volume provide more information on how the concepts we have discussed have been used in concrete research investigations, and with what results. This research covers a wide range of topics and suggests fruitful areas for future research, but the logic of inquiry follows that outlined in the first two chapters of this volume. We encourage readers to return to these pages after reading on, since many of the ideas that may at first seem less than self-evident, or perhaps too abstract, may become clearer upon reexamination.

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CHAPTER 3

THE MEANING OF SOCIAL SUPPORT AND THE MEDIATION OF STRESS ACROSS CULTURES

William A. Vega and Bohdan Kolody

In this chapter we touch upon two areas of critical importance to social-psychological stress modeling in Hispanic mental health. First, we briefly review selected aspects of social support from the perspective of traditional assumptions and recent empirical evidence concerning the functions of natural networks generally and within Hispanic cultures more specifically. Since chapter 6 includes a comprehensive review of the literature, we will limit ourselves to identifying some central concepts in the field as a baseline for understanding new research findings. We look at data on Anglos and Mexican-Americans that permit us to analyze the distribution of social support and related levels of psychopathology. Second, we look at stress and the mediating functions of social support using a parsimonious model. The model permits us to review the singular and combined effects of several factors simultaneously in terms of their relative contribution to psychopathology within the ethnic groups under study. As such, it illustrates the logic of stress modeling and presents new information about social support among immigrant and nonimmigrant Hispanics that is not currently available in the mental health literature.

As noted in chapter 1, researchers credit social support with providing a protective function in preventing illness or mitigating its impact. In this regard, the Hispanic mental health literature is particularly emphatic. Hispanics have been depicted as having very dense and supportive networks which provide substantial expressive and instrumental support (Valle and Vega 1980). As a consequence, natural support systems have been credited with the low utilization of mental health services among Mexican-Americans (Fabrega 1970). Other researchers have suggested that the strength of family relationships among Mexican-Americans actually reduces the prevalence of psychiatric disorder, thus resulting in less demand for mental health services (Madsen 1964). Thus, the presence of dense natural networks among Mexican-Americans has been associated with preventive and remedial functions and lower levels of psychopathology.

Keefe, Padilla, and Carlos (1978), reporting from cross-sectional survey data, indicate that Mexican-Americans are more likely to rely on relatives for emotional support, whereas Anglos are more likely to turn to friends first and relatives second. However, they found no evidence that either ethnic group would favor using formal agencies over natural network resources for addressing emotional problems. Their results reconfirm the profile of Mexican-American families existing within a dense network of extended kin, although they found immigrants have smaller supporting kinship units which tend to expand with subsequent generations. Unfortunately, the field data neither confirm nor deny the protective effects of familism vis-à-vis psychopathology, which could clarify the issue of underutilization of mental health facilities by Hispanics. However, as reported in chapter 2, no firm evidence supports the supposition that Mexican-Americans have lower levels of psychopathology than are found in the general population.

Contemporary mental health research has moved toward a diversification of methods and the reconceptualization of social support as a more complex phenomenon than had been assumed previously. In addition to the stress-buffering hypothesis of social support discussed above, more recent work (Aneshensel and Stone 1982) suggests that social support contributes directly to the satisfaction of multiple personal needs for "affiliation, belonging, respect, social recognition, affection, and nurturance," thereby lowering the risk of psychopathology. This view has been termed the "direct effect" hypothesis (in contrast with the stress-buffering hypothesis).

Thus researchers are realizing that if we are to understand the concept of support as an agency for promoting well-being, we must concern ourselves with more than structural elements required for buffering—e.g., size, availability, or frequency of contact within a network. We must also closely analyze the content of helping relationships to determine under what conditions social contact actually constitutes support. Aneshensel and Stone (1982) state that the stress-buffering paradigm depicts social support as "essentially a moderator of stress," whereas in fact "social support is beneficial in and of itself, and its absence is itself a source of stress." From another perspective, Belle (1982) has described social support as the cost-benefit ratio in human relations. She found in her research with low-income women that natural network support is not always the assistance of choice and may actually engage people in forms of reciprocity that drain their already limited resources or place them in stressful life circumstances.

Several recent articles on the positive association of psychopathology with extensive social ties provide dramatic evidence that the qualities of social networks that are truly supportive must be sought with great care and with refined methods. Two issues stand out in this quest about which we have some intriguing preliminary information. First, having a choice about when and whom to engage in a supportive relationship seems to affect both efficacy and satisfaction (Fischer et al. 1977). Thus, having a selection of support persons to whom one may turn in time of need is far better than having only one support person available—a forced choice situation, which is more likely to typify low-income groups. This fits in with the open and closed systems concept of human groups, since open systems are associated with an expansive opportunity structure and broader resources for problem-solving. Second, the type of support proffered is important. Helping behavior which concretely addresses a life burden or frees the individual to solve problems or find recreation is especially valuable (Belle 1982). In contrast, commiserating with a friend or relative about a mutually depressing state of affairs may do little to resolve the problem.

The following discussion of social support purports to determine the extent to which differences exist between Mexican-Americans and Anglos in the availability, use, and satisfaction (perceived support) with either friends or relatives as agents of social support. We will look at how these three aspects of support relate to psychopathology and stress using both simple descriptive models and complex statistical modeling. To a limited extent, we will also be testing the stress-buffering and direct effect hypothesis. The test of buffering and the direct effect hypothesis compares the relationship between satisfaction with support provided by friends and relatives and symptoms of mental disorder, since Aneshensel and Stone (1982) have identified dissatisfaction with support as a "subjective state in which relationships fail to fulfill the individual's psychological needs for affiliation and nurturance." We carry out a path analysis to determine the direct and indirect (buffering) contribution of multiple stressors and support satisfaction to symptom mean scores for Anglos, Mexican-American immigrants, and U.S.-born Mexican-Americans. This technique permits us to look at how intercorrelated predictors of psycho-neuroticism combine in a multivariate system.

Forms of Support: Its Presence Across Cultures

The following presentation (1) reviews the distribution of social support categories; (2) compares the relationship of social support, in each category, to psychopathology; (3) examines the relationship between social support, a specific life stressor (disrupted marital status), and psychopathology; and (4) analyzes the singular and combined contribution of multiple factors, including stress and social support, in the generation of psychopathology. Each of these steps is carried out for each of three study subsamples--Anglos, U.S.-born Mexican-Americans, and Mexican-American immigrants.

The data presented below are derived from an epidemiological field survey conducted in Santa Clara County, California, under the auspices of the County Bureau of Mental Health and the State Department of Mental Health. Complete documentation of this study can be found in the literature (Vega et al. 1984). The population sample was randomly selected and drawn from a countywide sampling frame, which was stratified based on ethnic background. It consisted of 635 Anglos and 533 Mexican-Americans (of whom 200 were immigrants and 333 were U.S.-born). We discovered early in the analysis of these data that the two groups constituting the Mexican-American subsample were themselves highly disparate; therefore, they are discrete in the presentation that follows.

The Anglo subsample is characterized by high education levels (approximately 60 percent had at least some college education), whereas most of the U.S.-born Mexican-Americans (USMA) had not completed high school, and most of the immigrants (MXI) had completed only grade school. Another interesting indicator of sociodemographic variation between the two Mexican-American subgroups is the language of preference in the interview. Overwhelmingly, the MXI subsample chose to be interviewed in Spanish, while the USMA selected English. We conclude that the subsamples represent three distinct sociodemographic profiles, ranging from the marginally educated and minimally acculturated immigrants to the well educated and structurally integrated Anglos.

The Health Opinion Survey (HOS) is a well-known measure of psychoneuroticism that has been used in studies throughout the world. It was originally developed by MacMillan (1957) and later used in the Stirling County study by the Leightons et al. (1963). Although it is not a diagnostic measure, clinical validation studies have found that it has significant predictive power in identifying chronic mental disorder, transitional stress reactions, and bad physical health (Tousignant et al. 1974). Other tests have shown that the HOS adequately discriminates nonpatients from psychiatric patients (Kuldau et al. 1978). The HOS has a scoring range of 20 to 60, with higher scores indicating more psychoneurotic symptoms. In the survey we have been describing, the Anglo subsample had a mean score of 25.89, the USMA subsample had a mean score of 26.32, and the MXI subsample had a mean score of 28.27.

The Distribution of Social Support

As mentioned previously, the survey measured three aspects of social support--the degree of support available from relatives and friends, actual support provided by relatives and friends, and the respondents' satisfaction with support proffered by friends and relatives. To determine the degree of support available from relatives, the survey asked, "Other than those in your household, how many relatives 18 years or older do you have who live within what you think of as reasonable visiting distance?" To determine support available from friends, the survey asked, "How many friends or acquaintances do you have in this area you feel you could go to to ask for any kind of help you consider important or who has given you such help without you asking for it?" The researchers compiled the answers concerning availability of support into the following categories: "none"--i.e., no support available from either friends or relatives, support available from "friends only," support available from "relatives only," and support available from "both friends and relatives" (see table 3-1). These data are reported as simple percentage distributions.

The two other variables--"actual" support and "satisfaction" with support--were tallied similarly. The degree of actual support was derived from responses to the question, "During the past 12 months how many of these relatives [friends] have you gone to asking for any kind of help you consider important or who has given you such help without you asking for it?" and "During the past 12 months how many of these relatives [friends] have you offered help you consider important?" To determine the degree of satisfaction with support received, the survey asked, "Are you content with how much you are able to share your innermost thoughts with your friends?" and ". . . with relatives who do not live in the same household with you?" Table 3-1 shows the distribution of "very content" responses ranging from "none"--i.e., very content with neither friends' nor relatives' support to very content with support from "both friends and relatives."

In accord with the findings of Keefe, Padilla, and Carlos (1978), the Santa Clara County study showed that the Mexican-American immigrants (MXI) were the most likely of the three

Table 3-1. Social support among friends and relatives

	Available			Actual			Satisfaction		
	Anglos (%)	USMA (%)	MXI (%)	Anglos (%)	USMA (%)	MXI (%)	Anglos (%)	USMA (%)	MXI (%)
None	2.1	5.3	10.3	16.9	14.7	15.3	23.7	23.0	29.0
Friends Only	25.0	10.6	19.5	17.8	23.9	23.0	8.2	10.9	12.1
Relatives Only	7.6	15.6	22.1	13.7	8.9	15.8	14.5	11.7	10.3
Both Friends and Relatives	65.3	68.5	48.2	51.6	52.6	45.9	53.6	54.3	48.6
Total N =	616	321	195	628	327	196	401	230	107
		$X^2 = 82.43$ $\underline{p} < .001$ $\underline{V} = .191$			$X^2 = 12.26$ $\underline{p} < .057$ $\underline{V} = .073$			$X^2 = 5.11$ $\underline{p} < .100$ $\underline{V} = .059$	

Percentage totals may not add to 100 because of rounding.

subgroups to report having neither friends nor relatives available for social support. Anglos were more likely than the other subgroups to have only friends available. Interestingly, the USMA subsample reported the highest rate of both friends and relatives available, followed closely by Anglos, with the MXI much lower on this response. Apparently, the immigrant group has a smaller support network at hand although they clearly rely on support from relatives more than Anglos do. These differences in perceived availability of social support may reflect varying levels of social integration among the three subgroups.

The data on "actual" support given to or received from relatives and friends indicate only minor differences among the subgroups as to the percentage of respondents reporting they received no support. On the other hand, fewer among the MXI subsample reported using both friends and relatives for support. Again, Anglos and USMA subsamples had very similar rates of reporting support from both friends and relatives, whereas the MXI subsample was more likely than the other subgroups to report support from relatives only. These data appear to reflect that immigrants, having smaller support networks, are more apt to get support from relatives. In contrast, the USMA subsample is more disposed toward using either friends or both friends and relatives. The similarity between the Anglo and USMA subsamples in availability and actual use of both relatives and friends for support and the greater reliance of the MXI subsample on relatives are the compelling features of these analyses.

The final comparison of table 3-1 deals with the level of satisfaction reported with friends' and relatives' support. Of the three subgroups, the MXI most often reported being "very content" with neither friends' nor relatives' support--the category labeled "none." The MXI respondents also expressed satisfaction more often only with the support proffered by friends, while both the Anglo and USMA subgroups expressed practically identical high levels of satisfaction with support from both friends and relatives.

We also calculated the chi-squared statistic and Cramer's V contingency coefficient for each support variable by ethnicity (see table 1). The strongest association with ethnicity obtains for "available" support. A much weaker, marginally significant, association exists between ethnicity and "actual" support, while the association between ethnicity and "satisfaction" with support is statistically insignificant. This indicates that all three subsamples reported statistically similar levels of satisfaction with support received, while the greatest dissimilarity in responses between ethnic groups concerned availability of support. On this variable, the immigrant subsample reported the least available support from friends and relatives combined.

Although these data suggest nothing about either the relative or absolute effectiveness of network relationships for solving problems or for offering protection against stress or psychopathology, Mexican-American immigrants clearly have less support available and are less satisfied with it. On the other hand, Anglos and U.S.-born Mexican-Americans seem to experience similar levels of support and express practically identical rates of satisfaction and dissatisfaction with that support. We next examine how the distribution of support relates to psychopathology among the three ethnic subsamples.

Social Support and Psychopathology

In order to address the relationship between social support and psychopathology in our three ethnic subsamples, we use three support categories: support from neither friends nor relatives, support from friends only or relatives only, and support from both friends and relatives (see table 3-2). Again we present HOS subsample mean scores for the three categories of support: available, actual, and satisfaction.

The MXI respondents who indicated having no support available from friends or relatives are at highest risk, with a mean HOS score above the subgroup mean (i.e., more psychoneurotic symptoms). In contrast, both Anglo and USMA respondents reporting no available support have lower mean scores than their respective subsamples. In all three subsamples, respondents having either relatives or friends available, or both, have mean scores that approximate their respective subsample means. Thus we see no clear association between psychopathology and availability of social support except for those immigrants who report no social support whatsoever being available.

Those respondents who report no actual use of social networks are in the optimal low-risk situation (i.e., lower HOS mean scores) compared to other respondents in each respective subsample who do avail themselves of social support. Respondents reporting actual support from either friends or relatives have mean scores similar to their subsample means. On the other hand, respondents who use both friends' and relatives' support are at highest risk for depressive symptoms. These findings seem to suggest two complementary explanations. First, those who seek help do so because they are in situations of greatest stress (reflected in higher HOS mean scores). Second, as suggested earlier, denser support networks may be associated with more

Table 3-2. Social support and HOS mean scores

	Available			Actual			Satisfaction		
	Anglos	USMA	MXI	Anglos	USMA	MXI	Anglos	USMA	MXI
Subsample Mean	25.89	26.32	28.27	25.89	26.32	28.27	25.89	26.32	28.27
Neither Friends nor Relatives	25.00	25.94	30.40	25.02	25.31	27.67	26.11	28.66	29.81
Friends Only or Relatives Only	25.77	26.45	27.91	25.08	25.75	28.11	26.38	26.62	28.42
Both Friends and Relatives	25.93	26.17	28.45	26.54	26.72	28.68	25.67	24.98	27.79

demanding situations that likewise show up in higher mean scores. Furthermore, these two possibilities could be mutually reinforcing.

The relationship between satisfaction with support and HOS mean scores is also consistent for all three subgroups (Anglos, USMA, and MXI). Respondents reporting satisfaction with neither friends nor relatives are at highest risk and have higher mean scores than their subsamples. Those reporting satisfaction with support from either friends or relatives have HOS scores similar to their subsample means, and those reporting satisfaction with both sources of support are in the optimal low-risk situation.

These data clearly indicate that availability, actual use, and satisfaction are quite different facets of social support. They also suggest that, except for "availability," a distinct pattern emerges for all subsamples, and Anglos appear to have a weaker association overall between support satisfaction and HOS mean scores. These data challenge the assumption that all social support acts as a buffer against stress or that dense support networks automatically protect against psychopathology as some of the Hispanic mental health literature suggests. Instead, the relationship between social support and psychopathology appears to be considerably more complex, and unraveling this relationship may require more robust research designs than we have had available to date.

Social Support, Life Stress, and Psychopathology

Disrupted marital status has proven to be one of the best predictors for depression, anxiety, and somatic symptomatology--conditions well suited for measurement by the HOS. In our descriptive analysis of social support and psychopathology, we next examine the role of social support in buffering the effects of disrupted marital status among our three ethnic subsamples (see table 3). To this end, we analyze HOS mean scores for the three types of social support (available, actual, and satisfaction) tabulated by marital status (married and disrupted) and further subdivided by source of support (no support or some support from friends and from relatives). Note that the friends and relatives subgroups are not mutually exclusive--i.e., respondents with support from neither friends nor relatives are included twice ("no friends' support" and "no relatives' support"), as are respondents with support from both friends and relatives ("some support--friends" and "some support--relatives"). Although this tabulation is somewhat complex, it permits us to compare directly the three categories of support for relatives and friends among respondents in disrupted or intact marital situations.

Table 3-3. Social support, marital status, and HOS mean scores

	Available			Actual			Satisfaction		
	Anglos	USMA	MXI	Anglos	USMA	MXI	Anglos	USMA	MXI
Subsample Mean	25.89	26.32	28.27	25.89	26.32	28.27	25.89	26.32	28.27
Married: No Friends' Support	24.78	26.53	29.12	25.07	25.03	27.82	25.86	25.83	28.14
Married: No Relatives' Support	24.62	29.26	29.15	24.49	24.63	27.38	26.05	25.87	28.48
Married: Some Support--Friends	25.44	25.38	27.73	25.46	25.82	28.11	25.68	25.11	27.55
Married: Some Support--Relatives	25.63	25.54	27.69	25.79	26.17	28.36	25.55	25.11	27.47
Disrupted: No Friends' Support	28.27	28.95	28.43	27.70	28.17	26.67	27.32	31.25	30.63
Disrupted: No Relatives' Support	29.15	27.63	30.00	27.59	27.04	31.11	29.00	31.94	33.50
Disrupted: Some Support--Friends	27.91	28.27	32.00	28.04	28.61	31.74	27.49	26.64	32.44
Disrupted: Some Support--Relatives	27.59	28.61	30.50	28.10	29.41	29.15	26.78	26.52	27.00

Married Anglos claiming either no support available from friends or no support from relatives have mean HOS scores below the subsample mean, whereas Anglos in a disrupted marital situation similarly lacking in available support from either friends or relatives have mean scores above the subsample mean. The Anglos in disrupted marital statuses with support available from either friends or relatives have lower scores than those without such support, but they are still above the subsample mean. Thus we see no consistent relationship between availability of support and psychopathology among married Anglos, but a pattern seems to emerge among Anglos in disrupted marital statuses—with those lacking available support, especially from relatives, at highest risk.

The married respondents from the USMA subsample with no support available from relatives are at significant risk for depressive symptoms, whereas those reporting availability of support from either friends or relatives are below the subsample mean. Among those in disrupted marital statuses, both those with and without available support have similar scores above the subsample mean. Thus we see no consistent relationship between availability of potential support and disrupted marital status in the USMA subsample.

A different pattern emerges for the married respondents of the MXI subsample. Those without available support from friends or relatives have higher scores than the subsample mean, whereas those with some available support have lower scores. Of those in disrupted marital statuses, all the USMA respondents—regardless of available support or lack of it from friends and relatives--have HOS mean scores above the subsample mean.

For the MXI group, as for the USMA subsample, the optimal situation is to be married and to have friends or relatives available for support, whereas the optimal situation for Anglos is to be married without social support available. This difference may reflect an absolute difference in personal resources available to Anglos for mediating life stress in comparison with the other subsamples. It may also indicate a difference in the age distribution and related life course implications among the respondents in this study. On the other hand, we see little evidence among the two Mexican-American subsamples that the presence of friends and relatives offsets symptomatology for those in disrupted marital statuses. This is an important insight which may indicate that simply having support available may not necessarily provide a buffer against stress; in fact, social support may not even have a significant direct effect.

Turning to actual support rendered, married Anglos who receive no support from friends or relatives have lower mean scores than those receiving such support; but in either case (with or without support), married Anglos have mean scores below the subsample means. By the same token, Anglos in disrupted marital statuses, regardless of support or lack of support from friends and relatives score higher than the mean for the subsample. This suggests that friends' and relatives' support is not a particularly effective method of reducing symptoms for Anglos in disrupted marital statuses. At least any salutary effects of such support are not evident in this analysis.

The married persons among the USMA subsample without actual friends' or relatives' support have slightly lower HOS scores than those who used their support network, but again all the married persons had lower mean scores than the subsample mean. As with the Anglos, USMA respondents in disrupted marital statuses have higher HOS mean scores than the subsample mean, with those who used network support scoring higher than those who failed to use either friends' or relatives' support. Thus use of support networks may relate positively to experiencing stress, but not necessarily to the alleviation of symptoms.

For the MXI, we see the same general pattern as for the other two subsamples. Married persons reporting not turning to friends or relatives for support have lower symptom levels than those using their support network (who have HOS scores comparable to the subsample mean). Those in disrupted marital statuses receiving some relatives' or friends' support have higher scores overall than those not receiving support.

Thus our data show that receipt of support from friends or relatives by those in disrupted marital statuses fails to mediate symptoms in all three ethnic groups. Clearly, assessing the viability of social support is a complex problem with multiple dimensions. Neither the availability nor use of support is enough to predict lower levels of psychological distress, although they may well predict higher levels of need for support.

The subjective dimension of "satisfaction" with support received probes a different aspect of support, measuring the perceived effectiveness of support in satisfying a person's particular needs. Satisfaction here indicates contentment with the content of social support, independent of network size or intensity of interaction.

In this study, the married Anglos who claim dissatisfaction with relatives' or friends' support have symptom levels similar to the subsample mean, whereas those feeling satisfied with such support have scores slightly lower than the mean. Among those in disrupted marital statuses, those who are dissatisfied with support received--especially from relatives--have higher scores than the mean. Those in disrupted marital statuses who are satisfied with relatives' support have markedly lower symptom levels than those who are dissatisfied with support from relatives. In general, we see satisfaction with support received associated with slightly lower HOS scores, while dissatisfaction with support from relatives on the part of those suffering marital disruption is a very important predictor of symptomatology among the Anglo subgroup.

The married respondents in the USMA subsample who report satisfactory support from relatives or friends are in the optimal low-risk situation, whereas persons in disrupted marital statuses who are not satisfied with friends' or relatives' support are at the highest risk for symptoms. Persons in disrupted marital statuses who are satisfied with support received have substantially lower HOS scores than those who are dissatisfied, but their scores are still slightly above the mean score for the USMA subsample.

We see the same pattern among the MXI respondents. Both married persons and those in disrupted statuses who receive satisfactory support from friends or relatives generally have lower HOS scores than those without satisfactory support; for those in disrupted statuses, satisfaction with relatives' support is particularly critical in reducing symptomatology.

Overall, we see a very consistent relationship between satisfaction with support and symptomatology for all ethnic subsamples and a clear directionality. The only notable inconsistency is among friends' support for those in disrupted marital statuses. Thus satisfaction with one's support network is inversely related to symptoms for both married people and those in a disrupted marital status.

Although our conclusions are provocative and extend our knowledge about social support among Hispanic populations, descriptive statistical tables (even when controlling for multiple variables) can do no more than highlight the existence of suspected associations. In order to make causal inferences we must analyze several factors with a multivariate technique that permits us to assess simultaneous relationships, and their relative magnitude. In keeping with the logic of stress modeling, we include factors representing stress, social support, and symptoms in the modeling.

Modeling Stress and Social Support

Previously, we stated that we intend to use multivariate analyses to test the stress-buffering and direct effect hypotheses of social support. The evidence, although only exploratory, points unequivocally to the conclusion that the stress-buffering model of social support is too simplistic. Using availability and actual use of support among relatives and friends as proxy variables for "buffering," we failed to find any compelling evidence that stress-buffering in the context of a disrupted marital status is a universal byproduct of dense networks or that network resources are necessarily effective for problemsolving. On the other hand, using satisfaction with support received from friends or relatives as our proxy, we found a consistent inverse relationship between such satisfaction and psychoneurotic symptoms for all three ethnic subsamples. The evidence supporting a criterion for "direct effect" (i.e., that the absence of support is itself inherently stressful) was consistent for satisfaction. Overall, these data suggest the importance and distinction between seeking support and the perceived effectiveness of support proffered.

Based partly on these findings, we concentrate the multivariate modeling that follows on six variables: sex, ethnicity, education, marital status, satisfaction with support from friends and relatives, and HOS symptoms (the dependent variable). Although we recognize the inherent limitations of cross-sectional data, using path analysis techniques, we can trace the direct and buffering strength of these variables as "causes" of symptoms. We chose these variables because they represent proxy indicators of stress and social support that are of exceptional interest in the psychiatric literature. Ethnicity is analyzed in two-way comparisons of the three subsamples, using Anglos as the reference category. In addition, we have included educational level attained because researchers consider it a robust indicator of stress. Similarly, disrupted marital status correlates highly with psychological distress. The inclusion of satisfaction with support from friends and relatives as a variable allows us to determine whether a relationship exists between this variable and the independent variables in producing HOS scores among the three subsamples. A concise summary of our statistical procedures follows. (For a detailed description of the methodology we used to conduct the path analyses, see the appendix.)

We first carried out a multiple regression under the path analytic causal modeling to assess the simultaneous effects of sex, ethnic background, education, disrupted marital status, and social support on HOS scores. Using stress model logic, we arranged the six variables in a fully recursive causal model (see figure 3-1).

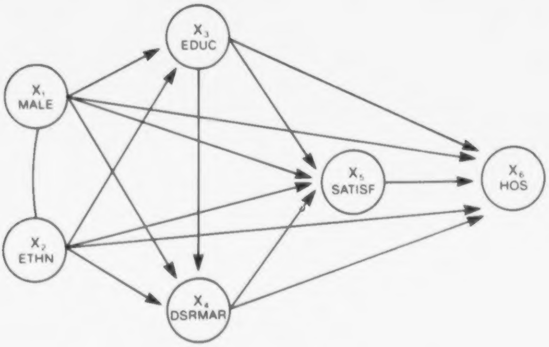

FIGURE 3-1.
Fully Recursive Causal Model

In this model HOS score is posited to be causally dependent on the other five variables. Satisfaction with one's social support network is dependent on the remaining four variables. Marital status is taken to be dependent on sex, ethnic background, and education; and education is dependent on the exogenous variables sex and ethnic background. The curved line between sex and ethnic background represents the very low, noncausal correlation observed between the two. This fully recursive model (i.e., showing all possible paths and unidirectional causation) serves as the principal comparison for subsequent overidentified models from which weak direct effects (small paths) are deleted.

We examined four general models (as described in the appendix; see figures A-2, A-3, A-4, and A-5). The first model (A=USMA-RELSAT) incorporates the U.S.-born Mexican-American vs. Anglo dichotomy for ethnic background and satisfaction with support from relatives as the support variable while the second (B=MXI-RELSAT) represents the Mexican-American immigrant vs. Anglo dichotomy with the same support variable. Similarly, the other two models, C=USMA-FRSAT and D=MXI-FRSAT, represent satisfaction with support from friends for the two ethnic subgroups. Comparisons among the four models help assess ethnic differences with respect to satisfaction with the two sources of support.

Summary of Path Analyses Findings

We used the path models to compare immigrant and U.S.-born Mexican-Americans to Anglos with respect to satisfaction with support from friends and relatives. Recall that we tested and reduced these four models to represent the most parsimonious set of interrelationships among the six variables posited in an initial fourteen-path model.

We can summarize the major findings from these models as follows:

1. We see no significant direct effect of ethnicity on HOS scores in any of the four models.
2. We see an indirect effect of ethnicity on symptom levels through the education variable in all models--i.e., for all ethnic groups, the higher the level of education, the lower the HOS score. Since ethnicity has a more powerful effect for the MXI respondents, the indirect effect of education on HOS symptoms is strongest for this group.
3. Disrupted marital status is positively related to HOS scores on all four models. However, only for MXI respondents does ethnicity add to differences explained in HOS symptom scores. In this instance, because fewer respondents are in disrupted marital statuses, it attenuates the symptom levels.
4. Education is negatively related to disrupted marital status across the four models. Therefore, the higher the education level, the less likelihood of disrupted marital status.
5. Being male corresponds with lower HOS scores in every case except among MXI respondents satisfied with relatives' support.
6. Although satisfaction with social support was modeled as an endogenous variable dependent upon sex, ethnicity, education, and disrupted marital status, these variables accounted for very little variation in levels of satisfaction across the four models. In only one model did we need to include a path to satisfaction in order to achieve our criteria for good fit. This points up the independence between satisfaction with support, as used here, and the four independent variables. This independence makes the correlation between support satisfaction and HOS scores more noteworthy. We found that the greater

the satisfaction with support from friends and relatives, the lower the HOS mean scores. Moreover, this relationship holds across ethnic groups.

Because we anticipated that much of the variation in satisfaction would be accounted for by these variables and because there was no theoretical rationale to expect otherwise, our original model (figure 1) posited satisfaction as dependent upon sex, ethnicity, education, and disrupted marital status. However, our analyses indicate that satisfaction as a measure of perceived support from friends and relatives has a direct effect on HOS symptoms independent of sex, ethnicity, education, and disrupted marital status.

Conclusion

In this chapter, we have concentrated on modeling stress theory and on a test between the direct effect hypothesis and the stress-buffering paradigm of social support. We surveyed a heterogeneous group in order to examine (1) the distribution of social support, and (2) the usefulness of ethnic and immigrant status in predicting symptoms of psychoneuroticism, as well as in identifying possible interactions with indicators of psychological distress and social support.

The results of our path analyses fundamentally agree with the direction predicted by stress theory. The proxy measures of stress--including sex, disrupted marital status, and education--are related in the expected way to HOS symptoms. Very importantly, we concluded that ethnicity was not an effective predictor of symptoms except indirectly through these other variables, suggesting that racial-cultural factors alone apparently do not produce important variations in symptom levels. This finding supports the social causation model of mental disorder as well as the basic assumptions of stress modeling.

Finally, the direct effect hypothesis would hold that where subjective needs for support are being met, lower symptom levels should result; and, indeed, the data we presented in complex multivariate modeling demonstrated this. Thus we show the social support construct constitutes an important predictor of psychoneuroticism independent of ethnicity and other sociodemographic indicators of stress.

APPENDIX

Description of Methodology

We used the procedures described below to conduct the path analyses. We present them here in sufficient detail to permit replication and critical appraisal.

The sex variable is coded male=1 and is represented in the models as MALE. Ethnic background is divided into U.S.-born Mexican-Americans (USMA) and Mexican-American immigrants (MXI), as well as Anglos (ANGLO). For analyses of the former, the variable USMA is coded 1 and Anglos=0. Similarly, in the analyses involving immigrants, the MXI respondents are coded 1 and Anglos=0. To enhance contrasts and facilitate comparisons, both the MXI and USMA subgroups employ Anglos as the reference category (i.e., coded zero). Education in years is represented by EDUC. Disrupted marital status (DSRMAR)--which includes persons who are divorced, separated, and widowed--is coded 1 and the reference category married=0.

Because combining persons who had never married with married persons seemed intuitively questionable, we deleted the "never married" category from our analyses. We included two support variables: satisfaction with relatives' support (RELSAT) and satisfaction with friends' support (FRSAT). Both are scaled ranging from very discontent=1 to very content=4.

We began reducing the full model just described for each of the four ethnic-satisfaction combinations by testing each standardized partial slope coefficient (i.e., path coefficient or beta) for statistical significance under the hypothesis $\beta=0$ at $\alpha=.05$. In cases where we considered more than one path for deletion, we employed a multiple partial test. Figure A-1 shows the general overidentified model within which all four ethnic-satisfaction combination models can be nested (i.e., it fits all four models). In this model we see that paths from ethnic background, education, and marital status to support satisfaction ($\underline{p}_{52}$, $\underline{p}_{53}$, and $\underline{p}_{54}$) can be deleted.

A general procedure for testing overidentified models is to calculate a chi-squared value from determinants of observed and reproduced correlation matrices. Under the assumption of uncorrelated residuals and a recursive model, such tests can be performed by examining residual path coefficients ($\underline{e}_i$ or $\sqrt{1-\underline{R}^2}$, the proportion of variance unexplained by that model stage). To test under this procedure we calculate a generalized squared multiple correlation ($\underline{M}_1$) for the original model and for the

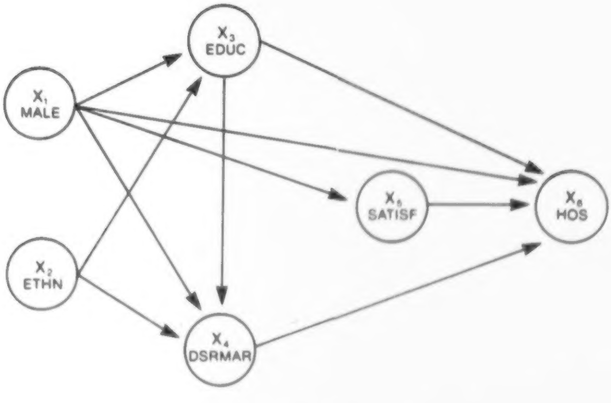

FIGURE A-1.
Overidentified Model

more restricted (overidentified) model ($\underline{M}_2$). These can be interpreted as "the ratio of the generalized variance explained by the causal model to the generalized variance which was to be explained by the model" (Specht 1975). For a recursive model the equations become

$$\underline{M} = 1 - (1-\underline{R}_1^2)(1-\underline{R}_2^2)\ldots.(1-\underline{R}_s^2)$$

or, one minus the product of the square of residual paths for each of the S stages (endogenous variables) in the model. We compare $\underline{M}_2$, the measure of fit for the more restricted model, to $\underline{M}_1$, the measure of fit for the less restricted model (more estimated parameters) through the ratio

$$\underline{Q} = \frac{1 - \underline{M}_1}{1 - \underline{M}_2}.$$

We test this ratio of generalized explained variance with the statistic

$$\underline{W} = -(\underline{N} - \underline{d}) \log_e \underline{Q}$$

where $\underline{d}$ = the difference between the number of overidentifying restrictions between the two models. $\underline{W}$ is distributed as chi-squared (χ^2) with $\underline{d}$ degrees of freedom. From the above we can see that the smaller the differences between the observed and reproduced correlations (that is, the better the fit of the model), the closer the value of $\underline{Q}$ to 1.0.

Because the natural logarithm of 1.0 is zero, we see that the better the fit of the reduced model, the smaller the value of X^2; therefore, a high value of X^2 means that the new model does not fit well. While Q is independent of N, X^2 is not; therefore, even a model which fits reasonably well can yield a statistically significant X^2 when Ns are relatively large as they are here. This being the case, a cautious strategy is to examine changes in relative values to changes in degrees of freedom with the introduction of overidentifying restrictions. Thus we introduced restrictions one at a time and maintained X^2 below significance at $\alpha=.05$.

Data for the model tests appear in table A-1.

Test I deletes the four paths absent in all four models; the results are presented as W, $d.f.$, Q. None of the tests is significant, pointing to good fit at this stage. Test II eliminates the path from ethnic background to disrupted marital status (p_{42}). Here, significant X^2 values point to retention of this path for the MXI models B and D. Test III eliminates both p_{42} and p_{51} for the USMA models A and C and only p_{42} for the MXI models B and D. Test IV deletes p_{61}, resulting in $p_{42}=0$ for A and C; $p_{51}=0$ for A, B, and C; and $p_{61}=0$ for B only. Test V compares the final models thus deleted to the fully recursive model, while Test VI compares them to the general 10-path model (model D). The last two tests show no significant value at appropriate degrees of freedom and thus point to overall fit. (See figures A-2, A-3, A-4, and A-5.)

These tests were designed to demonstrate the fit of the reduced model. In table A-1 each of the zero order correlations between HOS and the five variables is decomposed for each model through the basic theorem

$$r_{ij} = p_{ij} + \sum_k p_{ik} r_{jk}.$$

The outcome is the decomposition of each correlation into (1) direct effects, (2) indirect effects, (3) unanalyzed correlations due to correlated causes, and (4) spurious correlations due to common causes. Because the only source of unanalyzed correlations due to correlated causes is the very low observed correlations between sex and ethnic background, these are combined with spurious correlations due to common causes in table A-2. Also the correlation, as reproduced by the final model, is given and can be examined to assess the fit of the model for the variables in question.

Table A-1. Tests for reduction of the four models (W, d.f., Q)

Test	A USMA-RELSAT	B MXI-RELSAT	C USMA-FRSAT	D MXI-FRSAT
I	1.27, 4, .998	6.06, 4, .988	4.07, 4, .994	5.24, 4, .991
II	0, 1, 1.0	4.17*, 1, .992	0, 1, 1.0	3.94*, 1, .993
III	1.77, 2, .997	1.47, 1, .997	2.58, 2, .996	10.58*, 1, .981
IV	8.93*, 3, .985	3.15, 2, .994	16.57*, 3, .974	5.02*, 1, .991
V	3.04, 6, .995	9.17, 6, .982	6.61, 6, .990	5.25, 4, .990
VI	1.78, 2, .997	3.16, 2, .994	2.56, 2, .996	TEST I
N =	590	635	500	554

*Denotes W or χ^2 significant at = .05

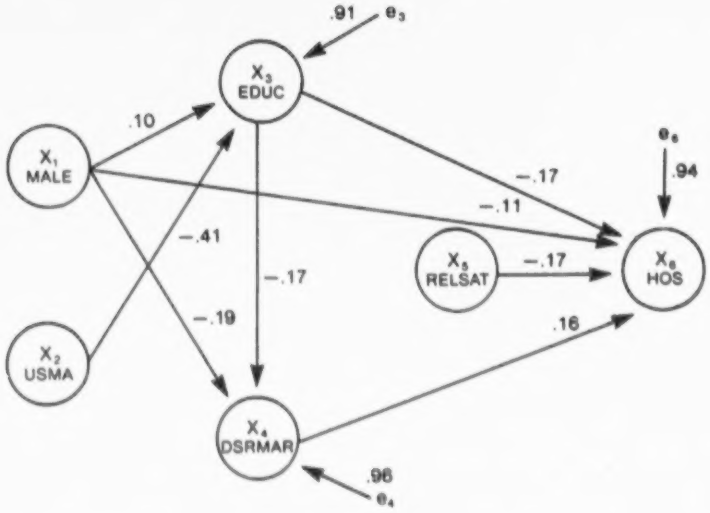
.91
e_3
X_3
EDUC
.10
X_1
MALE
e_6
.94
−.17
−.11
−.41
X_5
RELSAT
−.17
X_6
HOS
−.17
−.19
X_2
USMA
.16
X_4
DSRMAR
.98
e_4

FIGURE A-2.
Model A. USMA-RELSAT

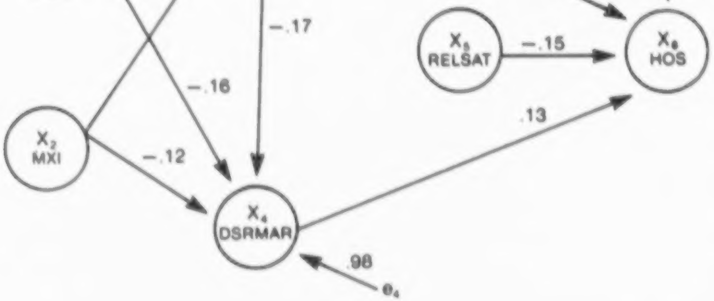
.80
e_3
X_3
EDUC
.11
X_1
MALE
−.60
e_6
.93
−.28
−.17
X_5
RELSAT
−.15
X_6
HOS
−.16
X_2
MXI
.13
−.12
X_4
DSRMAR
.98
e_4

FIGURE A-3.
Model B. MXI-RELSAT

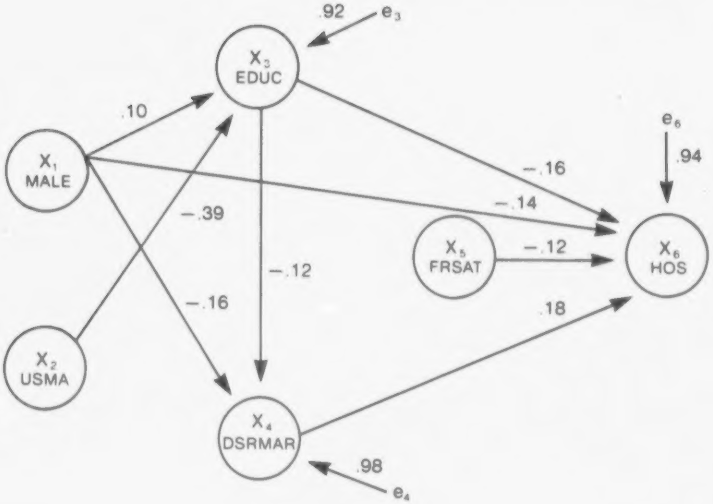
.92
e3
X3
EDUC
.10
e6
.94
X1
MALE
−.16
−.14
−.39
X5
FRSAT
−.12
X6
HOS
−.12
−.16
.18
X2
USMA
X4
DSRMAR
.98
e4

FIGURE A-4.
Model C. USMA—FRSAT

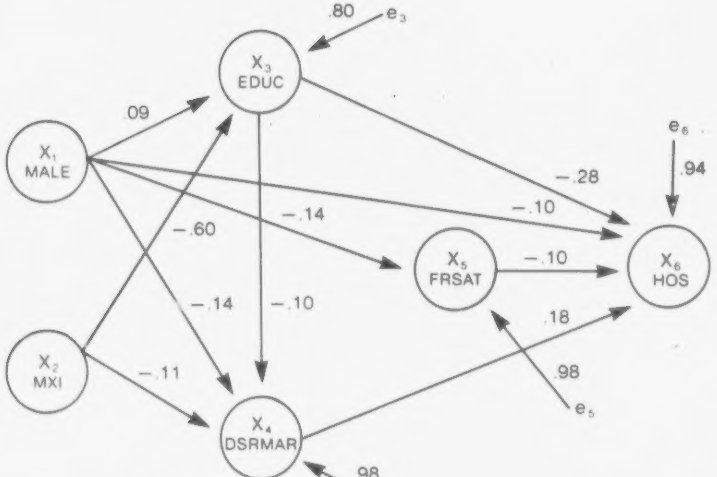
.80
e3
X3
EDUC
.09
e6
.94
X1
MALE
−.28
−.10
−.14
−.60
X5
FRSAT
−.10
X6
HOS
−.14
−.10
.18
X2
MXI
.98
−.11
e5
X4
DSRMAR
.98
e4

FIGURE A-5.
Model D. MXI-FRSAT

Table A-2. Decomposition and reproduction of zero order correlations between HOS and the five independent variables

Model	r_{16}=Male-HOS	Reproduced r_{ij}	Direct Effect	Indirect Effect	Unanalyzed + Spurious Comp.
A	-.14	-.15	-.10	-.02	-.01
B	-.09	-.06	-.06	-.03	.00
C	-.18	-.19	-.14	-.03	-.01
D	-.12	-.14	-.10	-.03	.01
	r_{26}=ETH-HOS				
A	.04	.08	-.03	.08	-.01
B	.19	.17	.05	.15	-.01
C	.01	.07	-.05	.07	-.01
D	.20	.17	.07	.14	-.01
	r_{36}=EDUC-HOS				
A	-.20	-.17	-.18	-.03	.01
B	-.30	-.30	-.25	-.03	-.02
C	-.19	-.20	-.18	-.02	.01
D	-.28	-.30	-.24	-.03	-.01

Table A-2 continued

Model	$\underline{r}_{16}$=Male-HOS	Reproduced $\underline{r}_{ij}$	Direct Effect	Indirect Effect	Unanalyzed + Spurious Comp.
	$\underline{r}_{46}$=DSRM-HOS				
A	.21	.16	.16	.01	.04
B	.17	.13	.12	.02	.03
D	.23	.18	.18	.01	.04
D	.19	.18	.17	.01	.01
	$\underline{r}_{56}$=SAT-HOS				
A	-.17	-.17	-.17	-	.00
B	-.17	-.15	-.15	-	.02
C	-.10	-.12	-.11	-	.01
D	-.06	-.10	-.10	-	.04

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CHAPTER 4

MEXICAN-AMERICAN IMMIGRATION AND MENTAL HEALTH: A COMPARATIVE ANALYSIS OF PSYCHOSOCIAL STRESS AND DYSFUNCTION

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Joanne Auth, Kenneth Meinhardt

Public interest in the mental health status of immigrants dates back to about 1840 and arose largely in response to the disproportionate number of foreign-born persons being treated in State-operated psychiatric institutions. Concern over this prompted legislation in 1917 providing for the deportation of aliens who became public charges within 5 years of their arrival to this country. Despite increasing evidence that immigrants may not have excessive rates of mental disorder, the belief that they are predisposed to psychiatric illness persists.

Immigration and Mental Health—Theoretical Background

Immigrants are an ideal group for testing the theoretical suppositions of social-psychological stress modeling as discussed in chapter 1 of this volume. Immigrants are subjected to extraordinary stressors such as separation from loved ones, changes in cultural expectations, physical displacement, and hardships associated with settlement in a new land. Moreover, the resilience and effectiveness of personal coping resources are directly challenged, permitting observation of factors and processes that are potential contributors to psychopathology. The fundamental issue is whether immigration represents such a qualitatively discrete experience that it leaves people at greater risk of psychopathology, above and beyond the usual demographic markers of stress found in the epidemiological literature (i.e., socioeconomic status, gender, age, etc.). The literature offers many explanations for the presumed relationship between immigration and subsequent mental health problems. Most of these suppositions fall into one of two competing theoretical frameworks--social causation and social selection.

Social Causation

The social causation theory suggests that immigrants are subjected to an inordinate number of psychosocial stressors resulting in greater than average levels of psychiatric disorder. These stresses arise from four interrelated sources: (1) intrapsychic confusion, (2) social isolation, (3) social structural adjustments, and (4) culture shock and conflict.

Brody (1970) and others (Grinberg and Grinberg 1984) have outlined the impact of immigration on an individual's intrapsychic processing, the dynamic interplay between the defensive and adaptive mechanisms used by persons in response to new environmental circumstances on the basis of past experiences. These theorists suggest that the disjunctures between previous socialization and the new demands occasioned by immigration lead to psychological distress, especially alienation. This scenario is particularly likely when the host culture imposes social definitions on the new arrival that are inconsistent with his prior self-concept or when the immigrant is oblivious to these changed definitions.

A second potential source of stress for immigrants involves the loss of familial and interpersonal supports. Unless new arrivals are part of a family system that immigrates en masse or have a family awaiting them at their destination, the loss of emotional and other related social supports may lead to feelings of hopelessness, despair, and depression. Similarly, the loss of old and trusted friends and neighbors may add to an immigrant's loneliness and feelings of social isolation. Faced with the loss of family and friends, immigrants are compelled to establish new sources of support. This task often proves troublesome, especially when the host society has negative prejudices or discriminates against persons with the immigrant's national, racial, or ethnic background. In order to meet their need for supportive relationships, immigrants have customarily sought acceptance and support in ethnic, racial, or religious enclaves. Although these enclaves tend to provide emotional nurturance and personal identities for immigrants, membership in them may also prolong the stresses associated with adjustment to the new society by providing barriers to acculturation and assimilation. A graphic description of the social isolation and despair accompanying the loss of family and friends is detailed in the classic work of Thomas and Zaniecki (1927).

In addition to intrapsychic confusion and interpersonal losses, immigrants may be stressed unduly by the tasks associated with adapting to a new social structure. Language skills must be learned; employment and housing must be secured; and, perhaps most importantly, a new body of social attitudes must be acquired and internalized. These tasks and processes, which require great effort for most persons in complex, impersonal, technological societies, impose even greater demands on immigrants. Not only must immigrants master the skills required of all members of their host society, but they must also sort out and discard those elements of their previous existence which impede their socialization and social structural integration. Under such circumstances, confusion and conflict, anomia, personal disorganization, and a variety of other problems related to social marginality may emerge. More detailed discussions of marginality, role conflict, and related issues are found in Park (1928), Stonequist (1937), Mead (1949), Glazer and Moynihan (1964), and Heilbut (1983).

Social causation theorists also believe that the necessity of adapting to a new cultural milieu further stresses immigrants. The term culture shock was coined to express the feelings experienced by those entering a new and different social environment. This may occur briefly even for the casual visitor to a strange land. Unlike the casual visitor, however, immigrants are confronted with a large number of high priority and conflicting demands associated with their anticipated permanent membership in a new cultural system. They must learn a new language along with the subtle nuances which accompany both verbal and written communication. They must acquire new sets of beliefs, values, symbols, and meanings to guide them and must develop new skills in order to use the tools and other artifacts of the adopted culture. Without these skills, they are seriously impaired in their efforts to access the opportunity structures of the host society, leading to economic and social deprivation that provides yet another set of stressors.

In summary, social causation theorists explain the presumed higher rates of mental disorder among immigrants as resulting from the processes of adaption, accommodation, and acculturation which involve dynamic and synergistic changes in the immigrants' intrapsychic character, their interpersonal relationships, and their social roles and statuses. Furthermore, these changes take place in an unfamiliar and sometimes hostile cultural context. The final product of these changes is, presumably, a new personal and social self. As this occurs, the immigrants' marginality may increase, particularly if their acquired socialization and acculturation result in a social distancing from spouse, family, friends, and the institutions of the community of origin.

Social Selection

The social selection model is less complex than the social stress model discussed above. It has two underlying assumptions. First, it suggests that persons with mental disorders are more likely to immigrate than those without such problems. Social selection theorists believe that the mentally ill drift downward in the social hierarchy of a society. Thus, they have more to gain and less to lose socially and economically by immigrating than persons entrenched in the higher social and economic statuses.

The second assumption of the social selection model suggests that the social deviance often associated with mental disorders tends to sever the familial, interpersonal, and societal relationships normally found among members of a society. This disruption of personal and social bonds, in turn, leads to social isolation and residential instability--conditions that are conducive to immigration.

Thus, social selection theorists believe that the higher rates of psychopathology reported for immigrants result from their preimmigration mental health status, coupled with their lack of supportive relationships and economic resources. These factors lead to their hospitalization in public institutions in this country, at which point they are enumerated as psychiatric cases. At the same time, persons in the dominant society who have mental health problems are more likely to remain invisible or uncounted inasmuch as they are cared for in family settings or within the confines of private facilities. Thus, social selection theorists believe that the higher rates of admission to State mental hospitals by immigrants in the 18th and early 19th centuries can be attributed to their preimmigration psychopathologies and not to the stresses associated with socialization and acculturation.

Both the social causation and the social selection postulates have some credibility. Scientific data do indicate that immigrants sometimes experience significantly more life stresses and mental disorders than their native-born counterparts (Srole et al. 1962), but other findings support the selection hypothesis (Clark 1948; Malzberg and Lee 1956). Undoubtedly, both positions have some validity and in all likelihood each would be enhanced by embracing elements of the other. Nevertheless, research on immigration and mental health is currently undergoing both theoretical and substantive changes due to a growing sophistication which has led away from reliance on treatment data to information obtained as part of epidemiological field surveys. As part of the maturation process, the causation selection debate has given way to a more empirical posture which asks: "Under what conditions do immigrants have higher rates of mental disorder than native-born members of a population?" Stress modeling is especially well suited for empirically testing these conditions.

Purpose

In this chapter, we address a number of issues regarding immigration and its mental health consequences within a framework which is somewhat unusual but not unique. Rather than comparing immigrants with nonimmigrants in a particular social setting, we focus on whether foreign-born Mexican-Americans have significantly different patterns of mental health than those of Mexican-Americans born in the United States. Specifically, this chapter addresses the following questions.

1. Do persons of Mexican-American heritage who were born in Mexico have more psychiatric symptoms and dysfunctions than Mexican-Americans born in the United States?

2. How do age, sex, marital status, and educational achievement relate to the mental health of foreign-born and native-born Mexican-Americans?

3. Does the number of primary relatives born outside the United States affect the mental health of native and foreign-born Mexican-Americans?

4. What are the relationships between residential mobility and mental health among Mexican immigrants and persons of Mexican-American heritage who were born in the United States?

Study Design

The data reported in this chapter were obtained as part of an epidemiological field survey conducted in Santa Clara County, California. This is the same data base reported in chapter 3. The survey, which used statistical probability sampling procedures, secured information on 1,345 persons.* Of this number, 637 were Anglos, 551 were Mexican-Americans, and the remaining 157 were of diverse racial and ethnic backgrounds. This chapter presents data on the Mexican-American subsample only. Research findings that report the cross-cultural comparisons from this study have been published elsewhere and will not be described here. Those interested in these findings are referred to our previous work (Warheit et al. 1983; Vega et al. 1984).

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*Some of the group and subsample totals will vary between this chapter and chapter 3 due to deletion of subjects for a variety of technical reasons.

The Mexican-Americans interviewed as part of the survey had the option of responding in either English or Spanish. Provided this choice, 330 answered the questions in English; the remaining 221 chose to be interviewed in Spanish. In order to address the questions that provide our focus in this chapter, the Mexican-American sample was subdivided on the basis of country of birth. This division revealed that 340 of the Mexican-Americans were born in the United States, and 200 were born in Mexico. The birthplace of 11 other Mexican-Americans could not be established definitively and they have been deleted from our analyses.

Because chapter 3 describes the study design, methodological details are not included here except to briefly describe the two psychiatric symptom/dysfunction scales used as the dependent variables in our analyses. One of these was designed to measure depressive symptomatology; the other was developed to determine the presence of psychosocial dysfunction. The depression scale secures information on a very prevalent phenomenon which has been described extensively in the psychiatric epidemiological literature. Our own findings on the distribution of depressive symptomatology for the total sample comprise a part of that literature (Vega et al. 1984).

The psychosocial dysfunction scale measures the amount of personal and social dysfunctionality attributable to a variety of psychiatric symptoms and conditions. As such, it is a better measure of gross psychopathology than a symptom scale alone. Although neither of these scales provides sufficient information to make specific psychiatric diagnoses, they have been found to successfully differentiate levels of psychopathology among both patient and nonpatient populations. Those interested in the details of these tests are referred to Schwab, Bell, Warheit, and Schwab (1979); Kuldau, Warheit, and Holzer (1976); Warheit, Vega, and Auth (1985); and Vega, Warheit, Auth, and Meinhardt (1984).

Findings

As we were analyzing the data, we realized that small cell sizes were influencing some of the outcomes of the statistical tests. Moreover, in some instances, small numbers dictated caution in interpreting and generalizing from the findings. We analyzed the data using t-tests and one-way analysis of variance to test the depression scale scores for statistically significant differences. We also did both within-group and between-group analyses.

Depression Scale

The data on depressive symptomatology by country of origin controlling for sex are reported in table 4-1. The analyses showed that males had lower scores than females in both nativity cohorts, while those born in Mexico had significantly higher scores than U.S.-born persons in both sex groups. Therefore, we concluded that immigrant status, when uncontrolled for other variables, was highly associated with increased levels of depressive symptomatology.

Table 4-1. The distribution of mean depression scores among Mexican-heritage persons born in the United States and Mexico by sex

Sex	Depression scores		
	N	Mean	SD
Males	268	11.8	8.8
U.S.-born	170	10.1	7.7
Mexican-born	98	14.8	9.8
		****	
	N	Mean	SD
Females	275	16.2	9.5
U.S.-born	172	15.0	9.3
Mexican-born	103	18.2	9.5
		***	

*** $p<.005$
**** $p<.001$

When the depression scores for the two study groups were controlled for sex and age, we found no within-group differences for either of the male subsamples (see table 4-2). And, although the within-group differences were statistically significant for both female groups, they presented no consistent patterns.

Table 4-2. The distribution of mean depression scores among Mexican-heritage persons born in the United States and Mexico by sex and age

Males	U.S.-born			Mexican-born			
	N	Mean	SD	N	Mean	SD	t-test sig.
Age							
18-19	17	9.1	5.0	4	17.6	9.3	*
20-29	54	9.9	7.1	39	15.0	9.6	***
30-39	31	8.8	6.9	22	12.5	6.1	**
40-49	31	11.6	9.6	15	16.2	14.5	*
50-59	27	10.0	7.6	7	18.4	12.3	*
60 and over	8	13.6	12.4	9	14.0	7.0	NS
	168			96			
		NS			NS		

Females	U.S.-born			Mexican-born			
	N	Mean	SD	N	Mean	SD	t-test sig.
Age							
18-19	14	16.9	11.0	3	17.0	6.2	NS
20-29	60	16.2	9.5	34	18.4	9.2	NS
30-39	46	14.2	8.6	22	14.3	5.8	NS
40-49	21	9.6	4.7	18	24.4	12.3	****
50-59	24	15.3	8.8	9	19.6	5.6	NS
60 and over	6	21.7	14.6	17	16.2	10.3	NS
	171			103			

* $p < .05$
** $p < .01$
*** $p < .005$
**** $p < .0001$

NS—Not significant

The depression scores for the Mexican-born males were higher in all age categories than were those of males born in the United States. Moreover, the differences were statistically significant in all age groups except for those aged 60 and over. Similarly, in all age groups, females born in the United States had lower depression scores than the Mexican-born females (except in the 60+ age group where the number of respondents is too small to generalize). However, the differences were statistically significant only in the 40-49 age group.

On the basis of the data reported in table 4-2, we concluded that the findings are equivocal. The depression scores for immigrant males were higher in all age groups than those of U.S.-born Mexican-American males. For females, immigration did not seem to have the same relationships that it had for males although the depression scores for both female samples were generally higher than those of males in comparable age categories. Thus, immigration seems to have increased the risk for high levels of symptomatology for males, whereas for females the overriding source of risk appears to be associated with gender.

We present the findings on depression scores controlled for sex and marital status in table 4-3. Because of small cell sizes, we placed the widowed, separated, and divorced in one category labeled "disrupted statuses."

For males in both cohorts, those in disrupted statuses had higher scores than the never married and married although the within-group differences were not statistically significant. The scores for the married were slightly lower than those of the never married, but again the differences were small and not statistically significant.

The between-group analysis showed that the never married and married males born in Mexico had significantly higher scores than their counterparts born in the United States. And, although the score differences for those in the disrupted statuses group were not statistically significant, Mexican-born males in this category too had higher depression scores than U.S.-born males.

The depression scores by marital status for females showed significant within-group differences for those born in the United States. In this instance, the never married had slightly higher scores than those in the disrupted statuses group and significantly higher scores than those in the married category. The data on Mexican-born females showed no significant differences overall, but the lowest scores were found among the never married. These variations suggest that among females, the relationships between marital status and the prevalence of depressive symptomatology are different within the two nativity samples.

Table 4-3. The distribution of mean depression scores among Mexican-heritage persons born in the United States and Mexico by sex and marital status

Males		U.S.-born			Mexican-born		
	N	Mean	SD	N	Mean	SD	t-test sig.
Marital status							
Never married	43	10.6	7.2	18	15.6	8.9	*
Married	110	9.5	7.4	73	14.4	9.4	***
Disrupted statuses	16	13.4	10.5	7	16.4	16.0	NS
	169			98			
		NS			NS		
Females		**U.S.-born**			**Mexican-born**		
	N	Mean	SD	N	Mean	SD	t-test sig.
Marital status							
Never married	34	17.8	10.3	10	15.6	8.9	NS
Married	88	13.3	8.4	67	17.6	8.6	***
Disrupted statuses	49	16.3	9.4	26	21.0	11.6	*
	171			103			
		*			NS		

* p<.05

** p<.01

*** p<.005

**** p<.001

NS--Not significant

The between-group analysis for females showed that those who were born in the United States had higher depression scores than the Mexican-born females in the never married category. The differences were not statistically significant, however. In contrast to this finding, the scores for Mexican-born females in the married and disrupted statuses groups were significantly higher than the scores of the cohorts born in the United States.

The data on the relationships between marital status, country of origin, and depressive symptomatology indicated that with one exception Mexican-Americans who were born in Mexico had higher depression scores in all categories than those born in the United

States. This was true for both males and females. Moreover, the between-group scores for four of the six marital status categories were significantly different from one another with the higher scores being reported for those born in Mexico.

The questionnaire used in the Santa Clara survey also asked about occupation, education, and family income. These data are being used to construct a three-dimensional index of socioeconomic status. At present, however, this work has not been completed. Moreover, space limitations prohibit our presenting findings on all three of these classes of information. Thus, following a preliminary review of the findings which showed high correlations between the three sets of variables, we decided to use educational achievement both as an indicator of cultural integration and as a proxy for socioeconomic status.

We report the data on depression scores for the two Mexican-American cohorts controlling for educational achievement in table 4-4. In all educational level groups, foreign-born Mexican-Americans of both sexes had higher depression scores than their native-born counterparts. Among males born in the United States, the depression scores showed a generally inverse relationship. Those with the lowest educational achievement had the highest rates, while those with at least some college had the lowest scores. For the Mexican-born males, we saw no such pattern, and the overall differences were not significant. Among Mexican-born males, those with 9-11 years of education had the lowest depression scores and, as was the case for all education groups in both samples, those with the least education had the highest scores.

The between-group analysis for males produced mixed findings from a statistical perspective. Although Mexican-born males had higher depression scores than U.S.-born ones in all educational categories, the differences were statistically significant only for those who had graduated from high school and those who had some formal education beyond the 12th grade.

The findings on depression scores, birthplace, and educational achievement for females indicated, as noted, that the within-group scores for the U.S.-born females were significantly different from one another. Again, those with the lowest educational achievement had the highest scores while those with the highest levels of education had the lowest scores. However, for the Mexican-born females, the highest scores were found among the least educated and the most educated. The lowest scores were reported for those who had completed high school.

The between-cohort analysis showed significantly different scores for the groups in only one instance. U.S.-born females who

Table 4-4. The distribution of mean depression scores among Mexican-heritage persons born in the United States and Mexico by sex and educational attainment

Males	U.S.-born			Mexican-born			
Educational attainment	N	Mean	SD	N	Mean	SD	t-test sig.
0-8 years	30	14.4	11.8	45	16.7	11.8	NS
9-11 years	32	10.2	6.9	17	12.6	4.6	NS
H.S. grad.	63	9.4	6.8	14	14.1	7.0	*
13 or more years	45	8.1	4.8	22	12.9	9.6	**
	170			98			
		**			NS		

Females	U.S.-born			Mexican-born			
Educational attainment	N	Mean	SD	N	Mean	SD	t-test sig.
0-8 years	34	18.0	10.4	64	19.2	10.2	NS
9-11 years	46	16.3	9.3	19	18.0	8.2	NS
H.S. grad.	57	14.2	8.6	14	15.9	6.6	NS
13 or more years	35	11.5	8.0	6	19.0	10.6	*
	172			103			
		*			NS		

*	$p < .05$	NS—Not significant
**	$p < .01$	
***	$p < .005$	
****	$p < .001$	

had more than a high school education had significantly lower depression scores than Mexican-born females with the same educational attainment.

We found the data on depression scores, birthplace, and educational achievement very interesting. For the U.S.-born respondents, we see patterned relationships that mirror those reported by epidemiologists who have studied communities throughout the

United States. However, these patterns do not hold for the Mexican-born except insofar as the least educated had the highest depression scores. Because of the small cell sizes, we need to be cautious in suggesting generalizations. Nonetheless, the data on educational achievement among the immigrant groups, both male and female, do not follow the pattern seen for U.S.-born Mexican-Americans nor do they agree with the findings commonly reported by epidemiologists working with general populations in the United States.

Researchers interested in immigration and its relationships to mental health have often suggested that the retention of strong blood and kinship ties to persons in the country of origin impedes the acculturation process. Furthermore, they reason that such ties to the immigrants' interpersonal and familial past may produce or exacerbate social and cultural marginality which, in turn, may lead to maladaption and mental health problems. Information obtained in the Santa Clara study permits us to examine some of the issues asssociated with these assumptions.

We report data on the number of close relatives born in Mexico for both nativity cohorts in table 4-5. For our analysis, we added together the number of Mexican-born parents, grandparents, and spouse to represent a measure of Mexican heritage.

Table 4-5. The distribution of mean depression scores among Mexican-heritage persons born in the United States and Mexico by number of parents/grandparents/spouse born in Mexico

Parents/grandparents/ spouse born in		U.S.-born			Mexican-born		t-test
Mexico	N	Mean	SD	N	Mean	SD	sig.
None	50	12.8	9.2	1	4.0	0.0	NS
1 or 2	98	11.6	8.9	6	11.2	11.0	NS
3 or 4	128	13.4	8.9	23	16.7	8.5	NS
5 or more	66	12.3	8.7	171	16.8	9.9	***
	342			201			
		NS			NS		

*** p< .005 NS--Not significant

Based on the data presented in table 4-5, we found that 15 percent of the Mexican-Americans born in the United States had no foreign-born family members. Not surprisingly, only one of the Mexican-born cohort (less than one-half of 1 percent) reported having no close family members born in Mexico. At the other end of the continuum, less than 20 percent of the cohort born in the United States had five or more close relatives born in Mexico, compared with 85 percent of the Mexican-born respondents. Thus, as we would expect, the Mexican-born respondents had a much stronger Mexican heritage than their counterparts born in the United States.

The analysis of variance and t-tests revealed no significant within-group score differences for either cohort. For the group born in the United States, the range of scores was quite low. The fluctuations were much greater for the Mexican-born sample, but the within-group differences were still not significant.

Because the cell sizes for the two lowest Mexican-heritage categories were very small for the Mexican-born cohort, we excluded them from our between-group analysis. This analysis indicated that generally Mexican-born respondents had higher scores than those born in the United States. These differences were statistically significant only for those with five or more relatives born in Mexico.

Our most important finding from the data in table 4-5, however, was the lack of statistically significant within-group score differences for the cohort born in the United States. The scores for all members of this cohort were very similar, suggesting that the degree of Mexican heritage made no difference in their levels of depressive symptomatology. We found this to be true for the Mexican-born cohort as well among persons having three or four and five or more family members born in Mexico. These results suggest that the number of primary relatives born in Mexico did not influence the prevalence of depressive symptomatology in either group. Further, the data suggest that the higher scores for the Mexican-born cohort were associated with factors other than the density of their Mexican-born familial relationships.

Many researchers have examined the relationship between the residential mobility of immigrants and mental disorders. Although the work of Malzberg (1962) and his colleagues which spanned more than 40 years is the most prolific and best known, many others have contributed to this area of inquiry (Malzberg and Lee 1956; Locke and Duval 1964; Murphy 1965; Streuning et al. 1970). These and other researchers have tended to find a positive relationship between immigration, migration, mobility, and mental health problems, although their findings have not been conclusive.

However, most of these researchers used patient populations being treated in public institutions for their samples, making their conclusions subject to scientific criticism.

To reexamine this area, the Santa Clara project included questions on the residential mobility of those surveyed. We present data showing the relationships between length of residence and depression scores controlled for sex in table 4-6.

Table 4-6. The distribution of mean depression scores among Mexican-heritage persons born in the United States and Mexico by sex and years at current address

Males		U.S.-born			Mexican-born		
Years at address	N	Mean	SD	N	Mean	SD	t-test sig.
1 or less	37	10.3	7.0	35	13.9	8.3	*
2-3	33	11.8	8.5	24	14.5	9.3	NS
4-5	15	9.2	5.1	12	19.2	15.0	*
6 or more	84	9.6	8.1	26	13.3	8.6	*
	169			97			
		NS			NS		

Females		U.S.-born			Mexican-born		
Years at address	N	Mean	SD	N	Mean	SD	t-test sig.
1 or less	50	15.9	10.2	41	18.7	11.1	NS
2-3	35	16.7	9.7	21	16.8	6.5	NS
4-5	21	11.2	9.7	10	18.5	9.5	*
6 or more	64	14.9	8.8	31	19.1	9.1	*
	170			103			
		NS			NS		

* $p < .05$ NS--Not significant

Using these data, we found that both the Mexican-born males and females were less residentially stable than Mexican-Americans born in the United States. Only about 20 percent of the males born in the United States had been at their current address 1 year or less at the time they were interviewed. By comparison, more than a third of the Mexican-born males had been at their current address for 1 year or less. Moreover, almost half of the male cohort born in the United States had resided at their present address for 6 or more years whereas only about one-fourth of the Mexican-born males had lived that long at their current address. The same pattern existed for the two female groups. Overall, then, Mexican-American immigrants were more residentially mobile that U.S.-born Mexican-Americans.

The within-group analysis for all four sex-nativity cohorts indicated very minor differences, none of which were statistically significant. Thus, residential mobility, per se, does not appear to be associated with higher depression scores. This finding suggests that the higher depression scores for the Mexican-born respondents relate more to factors associated with immigrant status than with mobility.

Psychosocial Dysfunction

We report the data on psychosocial dysfunction by country of origin controlling for sex in table 4-7. The mean score for all

Table 4-7. The distribution of mean psychosocial dysfunction scores among Mexican-heritage persons born in the United States and Mexico by sex

Sex	Psychosocial Dysfunction Scores		
	N	Mean	SD
Males	268	1.82	4.63
U.S.-born	170	1.28	3.56
Mexican-born	98	2.75	5.95
		*	
	N	Mean	SD
Females	275	3.34	5.53
U.S.-born	172	3.11	5.35
Mexican-born	103	3.73	5.83
		NS	

* p<.01

NS—Not significant

males in the sample was 1.82 with a standard deviation of 4.63; for females the mean was 3.34 with a standard deviation of 5.53. This high standard deviation is found consistently throughout analyses of psychosocial dysfunction scores and can be attributed to the character of the scale itself. Because it is designed to measure dysfunctions that are attributable to psychiatric symptoms and syndromes, it tends to be bimodally distributed (so that most persons either have no dysfunctions elicited by the scale items or have several dysfunctions). We believe this bimodal distribution is appropriate for scales that are intended to discriminate gross mental disorders.

The findings reported in table 4-7 indicate that both males and females born in Mexico had higher psychosocial dysfunction scores than the U.S.-born cohorts. For males, the scores were significantly different, whereas those for females were not. Overall, females from both nativity cohorts had higher scores than the males. Thus, U.S.-born males had the lowest scores while Mexican-born females had the highest scores. These data alone suggest that gender is more highly correlated with psychosocial dysfunction than is country of origin.

When the data were controlled for both age and sex, we found the same general pattern (see table 4-8). In almost every age-sex category, U.S.-born persons had lower scores than foreign-born ones. However, the within-group scores were not statistically significant for either foreign-born or native-born samples. Therefore, we concluded that age, per se, is not highly correlated with country of birth and psychosocial dysfunction for either males or females.

The between-group analyses revealed no systematic pattern. Foreign-born males aged 50-59 had significantly higher scores than their native-born counterparts. For females, only the 40-49 age group had significantly different scores; again, the foreign-born females had significantly higher scores than the U.S.-born females.

On the basis of the data presented in table 4-8, we concluded that age was not a powerful correlate of high psychosocial dysfunction scores for either of the Mexican-American samples. In addition, age was not consistently related to high scores for the various age-nativity cohorts. Small cell sizes and high standard deviation might appear to reduce the significance of these findings. However, a careful review of the mean scores indicates that the variations in scores for the differing age-nativity groups are not very great.

Table 4-8. The distribution of mean psychosocial dysfunction scores among Mexican-heritage persons born in the United States and Mexico by sex and age

Males	U.S.-born			Mexican-born			
Age	N	Mean	SD	N	Mean	SD	t-test sig.
18-19	17	0.77	1.95	4	1.25	1.50	NS
20-29	54	1.07	3.87	39	2.92	5.53	NS
30-39	31	1.13	2.42	22	0.91	2.02	NS
40-49	31	2.07	4.34	16	2.19	5.21	NS
50-59	27	1.11	4.01	7	8.71	12.61	**
60 and over	8	2.00	3.74	9	3.78	7.63	NS
	168			97			
		NS			NS		

Females	U.S.-born			Mexican-born			
Age	N	Mean	SD	N	Mean	SD	t-test sig.
18-19	14	3.14	3.23	3	0.00	0.00	NS
20-29	60	3.30	5.45	34	3.44	5.50	NS
30-39	46	3.28	5.52	22	2.14	3.78	NS
40-49	21	1.57	2.54	18	6.22	7.38	**
50-59	24	3.21	6.38	9	4.78	6.80	NS
60 and over	6	4.67	9.99	17	3.82	6.39	NS
	171			103			
		NS			NS		

* $p<.05$

** $p<.01$

NS--Not significant

We report the psychosocial dysfunction scores controlled for sex and marital status in table 4-9. Our analysis indicates that the subsample born in the United States generally had fewer psychosocial dysfunctions than the Mexican-born group. This was true for both males and females. Those in disrupted statuses had the highest mean scores whereas those who never married had the lowest scores in three of the four sex-nativity cohorts.

Table 4-9. The distribution of mean psychosocial dysfunction scores among Mexican-heritage persons born in the United States and Mexico by sex and marital status

Males	U.S.-born			Mexican-born			
	N	Mean	SD	N	Mean	SD	t-test sig.
Marital Status							
Never married	43	1.16	4.29	18	2.22	3.66	NS
Married	110	1.18	3.17	73	2.60	6.10	*
Disrupted statuses	16	2.38	4.08	7	5.57	8.87	NS
	169			98			
		NS			NS		

Females	U.S.-born			Mexican-born			
	N	Mean	SD	N	Mean	SD	t-test sig.
Marital status							
Never married	34	3.24	5.48	10	3.00	6.48	NS
Married	88	2.75	5.14	67	3.61	5.72	NS
Disrupted statuses	49	3.73	5.70	26	4.31	6.05	NS
	171			103			
		NS			NS		

* $p<.05$ NS--Not significant

We found no statistically significant within-group variations for any of the four subsamples. The cross-nativity analyses revealed significant differences in only one instance: married males born in the United States had significantly lower scores than married males of Mexican origin.

The data presented in table 4-9 suggest a uniform pattern with only slight variations in the distribution of psychosocial dysfunction scores. From these data, we concluded that marital status does not significantly influence the mental health of those in any of the four subsamples. The higher mean scores for foreign-born respondents can, in all probability, be attributed to other factors.

As discussed earlier, we selected education to serve as an indicator of social integration and socioeconomic status. We present data on psychosocial dysfunction scores controlling for sex and educational status in table 4-10. The findings show once

Table 4-10. The distribution of mean psychosocial dysfunction scores among Mexican-heritage persons born in the United States and Mexico by sex and educational attainment

Males		U.S.-born			Mexican-born		
Educational attainment	N	Mean	SD	N	Mean	SD	t-test sig.
0-8 years	30	3.00	4.91	45	4.24	8.00	NS
9-11 years	32	0.88	2.20	17	0.59	1.80	NS
H.S. grad.	63	1.30	4.27	14	1.64	3.32	***
13 or more years	45	0.40	0.91	22	2.05	3.23	***
	170			98			
		**			NS		

Females		U.S.-born			Mexican-born		
Educational attainment	N	Mean	SD	N	Mean	SD	t-test sig.
0-8 years	34	3.82	5.90	64	4.45	6.19	NS
9-11 years	46	2.57	4.41	19	1.84	3.75	NS
H.S. grad.	57	3.60	6.13	14	2.50	5.24	NS
13 or more years	35	2.34	4.53	6	4.83	7.91	NS
	172			103			
		*			NS		

* $p < .05$
** $p < .01$
*** $p < .005$

NS--Not significant

again that Mexican-Americans born in the United States tended to have lower overall scores than those born in Mexico. This was true in three of the four education categories for males and in two of the four categories for females. However, the within-group analysis indicates significant differences only among males born in the United States, where we found a generally inverse relationship between educational attainment and dysfunction scores.

The between-group findings revealed significant differences in only one instance. Males born in the United States with more than a high school education had significantly lower scores than Mexican-born males with the same amount of education.

The data on educational attainment showed the same association reported earlier for the depression scale. We found the high psychosocial dysfunction scores among those with the least formal education. The only exception was for Mexican-born females, where those with some schooling beyond high school had the highest scores. Curiously, those in the highest educational category had the highest scores followed closely by those with the least formal education. We view this finding tentatively because of the small number of cases in the post-high school group (N=6). Nonetheless, the group of Mexican-born females with 9-11 years of schooling is also unusual in that they had lower psychosocial dysfunction scores than females born in the United States. Obviously, more detailed analysis of these two female-nativity groups is warranted before we can reach meaningful conclusions. However, on the basis of the data presented, the relationships between educational achievement and psychosocial dysfunction scores do not follow a systematic pattern, with respondents having 9-11 years of education having lower than expected symptom levels across all subsamples.

The findings regarding family heritage, birthplace, and psychosocial dysfunction are reported in table 4-11. As noted previously, 85 percent of the Mexican-born respondents had at least five primary family members born in Mexico, compared to less than 20 percent of the U.S.-born sample. At the other end of the continuum, only 3 percent of the immigrants had fewer than three close family members born in Mexico. By comparison, more than 40 percent of the group born in the United States had fewer than three close family members born in Mexico.

The within-group scores were not significantly different for either sample although an interesting pattern emerged for the cohort born in the United States. As the number of Mexican-born primary relatives increased, the psychosocial dysfunction scores decreased. We cannot explain the reasons for this from the analysis at hand. Age, sex, and socioeconomic factors may affect

Table 4-11. The distribution of psychosocial dysfunction scores among Mexican-heritage persons born in the United States and Mexico by number of parents/grandparents/spouse born in Mexico

Parents/grandparents/ spouse born in Mexico		U.S.-born			Mexican-born		
	N	Mean	SD	N	Mean	SD	t-test sig.
None	50	2.60	5.21	-	-	-	-
1 or 2	98	2.50	5.87	6	2.67	5.61	NS
3 or 4	128	1.99	3.83	23	4.35	8.63	*
5 or more	66	1.86	3.42	171	3.14	5.49	NS
	342			200			
		NS			NS		

* $p < .05$ NS--Not significant

this particular score distribution; those persons with fewer Mexican-born family members may also lack an extensive familial support network in this country; the scores may reflect a sense of social and cultural isolation on the part of U.S.-born Mexican-Americans having fewer familial ties in Mexico. In any case, these findings, which are based on substantial numbers in each category, are contrary to what we would expect for a sample of U.S.-born persons.

The small cell sizes for the Mexican-born cohort limit meaningful conclusions from the data except to note that those with five or more primary relatives born in Mexico (N=171) had lower scores than those with three or four close relatives born there. Once again, this finding calls for closer scrutiny.

The score differences between the two samples controlling for birthplace of primary relatives were statistically significant in only one instance, although those born in Mexico consistently had higher mean scores than those born in the United States.

The findings on heritage and psychosocial dysfunction suggest that having a large number of family ties in Mexico relates to reduced psychosocial dysfunction scores for those born in the United States. These data refute the notion that ties to one's cultural heritage through foreign-born spouse, parents, and grandparents lead to marginality, stress, and psychopathology. If we can reach any conclusions on this issue from the data presented in table 4-11, we would have to conclude that a pervasive sense of one's cultural heritage (and possibly one's support network) is positively related to mental health and social well-being.

The data on the Mexican-born sample are too limited to suggest any conclusions or generalizations about the relationships between cultural heritage and psychosocial dysfunction scores. However, overall, we see a link between lower scores and increased Mexican heritage for both nativity groups. Again, these ties with cultural origins may be relevant because they are accompanied by intact familial support networks.

We report the data on psychosocial dysfunction scores controlled for residential stability and sex in table 4-12. The results indicate that both males and females born in the United States generally had lower scores than the Mexican-born respondents. The within-group analysis shows that the scores for both cohorts of males were strikingly uniform, with no statistically significant variations. The scores within the two female groups were less uniform, especially among the Mexican-born sample, but again the differences did not reach statistical significance.

The between-group analysis for the two male samples revealed statistically significant differences in only one category. Mexican-born males who had lived at their current address for 1 year or less had significantly higher psychosocial dysfunction scores than those in the U.S.-born group with the same residential status. The between-group analysis for females also revealed significant differences in only one instance. Females born in the United States who had lived at their present address for 2-3 years had significantly higher scores than females in this category who were born in Mexico.

The data reported in table 4-12 are consistent with those reported throughout this chapter. Mexican-born immigrants in most instances had higher symptom/dysfunction scores than did Mexican-Americans born in the United States. However, because most of the score differences were not statistically significant, the between-group findings are somewhat equivocal and inconclusive.

Our most important conclusion from the data reported in table 4-12 is that residential stability was not correlated with psychosocial dysfunction scores for any of the four nativity samples. To the contrary, we found a remarkable homogeneity of scores--and it was this uniformity rather than cell sizes or standard deviations that produced the nonsignificant test results.

Table 4-12. The distribution of mean psychosocial dysfunction scores among Mexican-heritage persons born in the United States and Mexico by sex and years at current address

Males		U.S.-born			Mexican-born		
Years at address	N	Mean	SD	N	Mean	SD	t-test sig.
1 or less	37	1.00	2.22	35	2.94	5.38	*
2-3	33	1.91	5.11	24	2.04	6.96	NS
4-5	15	1.67	4.56	12	2.83	6.09	NS
6 or more	84	1.11	3.14	26	2.65	5.61	NS
	169			97			
		NS			NS		

Females		U.S.-born			Mexican-born		
Years at address	N	Mean	SD	N	Mean	SD	t-test sig.
1 or less	50	2.48	4.16	41	3.87	6.46	NS
2-3	35	5.14	5.81	21	1.76	3.40	*
4-5	21	2.29	4.60	10	5.60	6.24	NS
6 or more	64	2.83	6.01	31	4.26	6.03	NS
	170			103			
		NS			NS		

* $p<.05$ NS--Not significant

Summary and Conclusions

Stress theory postulates that we can expect optimal functioning when stressors and coping resources maintain a dynamic balance. If this balance is disrupted and coping resources are overwhelmed by demands from the environment, psychopathology is one possible outcome. If, as many believe, immigration imposes special burdens, the effects should be evident in elevated levels of psychopathology. The findings reported in this chapter do show a consistent relationship between immigration and increased depressive symptomatology and psychosocial dysfunction scores. Respondents born in Mexico and residing in northern California had significantly higher levels of symptoms and dysfunctions than a cohort of Mexican-Americans born in the United States and residing in the same area. These higher scores, with a few exceptions, were found even when the data were controlled for sex, age, marital status, educational attainment, family heritage, and residential mobility.

The distribution of symptom and dysfunction scores within and between the four sex-nativity samples did not follow a uniform pattern. Score variations were especially marked among females. In addition, being female correlated more highly with mental health problems than any other control variable. The data suggest that gender differences were often more associated with elevated symptoms and dysfunctions than was immigration status. Females of both Mexican-American cohorts clearly had symptom and dysfunction configurations that resembled each other more closely than they did their male counterparts.

Our findings suggest that age was not consistently related to either depressive symptomatology or psychosocial dysfunction for any of the four set-nativity samples. In addition, the differences between the two nativity cohorts were most apparent for young adult males (on depression) and for both genders in middle age. Moreover, immigrant status was more associated with high scores on both scales than was age.

Country of origin was also more highly correlated with both depressive symptoms and psychosocial dysfunctions than was marital status. The overall findings on marital status tended to agree with other epidemiologically generated results. Persons in disrupted statuses had more mental health problems than those in the other marital categories. However, for the most part, marital status was not significantly related to higher scores whereas immigrant status was.

We used educational attainment as an indicator of both cultural integration and socioeconomic status. We viewed this variable as a crucial one inasmuch as education (and its correlates—occupation and income) are excellent predictors of high rates of psychopathology (Dohrenwend and Dohrenwend 1969; Schwab et al. 1979; Vega et al. 1984; Warheit et al. 1983). This pattern held for the males and females born in the United States. Those with less formal education generally had higher depression and psychosocial dysfunction scores than did those with higher educational achievement, although the differences were statistically significant only for males.

However, the relationship between educational achievement and psychiatric symptoms and dysfunctions for the Mexican-born respondents did not follow the customary pattern. Educational level was not significantly correlated with either depressive symptoms or psychosocial dysfunctions for either males or females. Those with 9-11 years of education had lower scores than those with 13 or more years of formal schooling in every instance. However, the score differences between nativity cohorts were with few exceptions not statistically significant.

The data presented show that educational achievement was differentially associated with psychiatric symptoms and dysfunctions within and between the four sex-nativity samples included in this research. More specifically, the findings indicated that differing levels of educational achievement had varying mental health correlates for the different sex, ethnic, and nativity groups.

The links that people have to their cultural past as a consequence of marital and familial relationships have been of great interest to researchers working in the area of immigration and mental health. The results we reported regarding this issue are inconclusive because of small cell sizes in some categories. However, the findings strongly suggest that the density of their ethnic heritage was not a major factor influencing the mental health of Mexican-Americans born in the United States. The trend, while not statistically significant, showed a positive relationship between the number of relatives born in Mexico and lower symptom and dysfunction scores.

The results on ethnic heritage and mental health scores for those born in Mexico are also equivocal because we had small numbers of respondents in some categories. Contrary to the results for U.S.-born respondents, Mexican-born respondents showed increased depressive symptoms and psychosocial dysfunctions as heritage densities increased. We offer these findings very tentatively because of the limitations of the data on heritage density. Nevertheless, we have an adequate base of information to justify our conclusions regarding Mexican-Americans born in the United States. In their case, links to their cultural heritage through family members were not associated with increased symptomatology or dysfunctionality.

A voluminous literature addresses the relationships between mobility and mental health. Prior research, while not conclusive, has suggested a causal relationship between residential instability and subsequent mental disorders. Examining this issue within the context of immigration and ethnicity, we found no statistically significant relationships between residential mobility and increased symptom or dysfunction scores for any of the four sex-nativity cohorts. The Mexican-born immigrants tended to have significantly higher depression and psychosocial dysfunction scores than their counterparts born in the United States in almost all mobility categories. These findings, while interesting, fail to address the issue of residential mobility and mental health. That question is addressed by our within-group analysis and, as noted, we found that mobility was not correlated with psychiatric symptoms or dysfunctions; moreover, we found very little score variation within any of the cohorts.

The most important finding presented in this chapter is that Mexican-Americans born in Mexico had higher depression and psychosocial dysfunction scores than those born in the United States. This fact remained very constant as the data were controlled for sex, age, marital status, educational attainment, heritage density, and residential mobility. When we made controlled comparisons across cohorts, significant differences sometimes emerged and sometimes did not. We are more than ever aware of the complexity of the question as to how immigration affects mental health. The interactions between human beings, social environments, and cultural settings are extremely synergistic and defy the simple, unicausal explanations which are popular in both the nonscientific and scientific literature. Our results show a significant correlation between immigrant status and mental health problems. Although we have noted some provocative associations in our presentation of findings, a comprehensive explanation is beyond the scope of our data set because this survey was not designed to address this issue.

Because immigration obviously can evoke diverse forms of psychosocial stress, we believe that such stress factors are related to the higher symptom scores found among immigrants in our sample. These data offer no evidence that the immigrants had serious mental disorders since their mean scores on both the depression and psychosocial dysfunction scales were much lower than those of psychiatric patients we have used in previous validation studies. Moreoever, questions pertaining to the use of mental facilities and to psychiatric hospitalizations showed both Mexican-American cohorts to be especially low utilizers of these services. Thus, these findings suggest that, although Mexican-American immigrants report higher symptom levels than either U.S.-born Mexican-Americans or Anglos, the prevalence of diagnosable mental disorders is not dramatically different. Therefore, if we must choose a theoretical position to explain the higher scores among immigrants, we believe the evidence favors social causation over social selection.

In our opinion, however, the debate between social causation and social selection has been counterproductive in that it tends to constrain the field of inquiry by dichotomizing complex research issues arbitrarily. We believe a more useful approach would be to blend stress theory and family history methodology within empirical designs that lend themselves to causal modeling. Optimally, conditions that produce or mitigate the stressors associated with immigration would be identified, and prospective designs would provide time-ordered data for measuring the strength and direction of associations.

For example, the following questions drawn from the migration-stress literature suggest some of the constructs that might be measured in future research. What conditions led to the immigration? Was it forced or voluntary? Was it prompted by social, political, or economic persecution and deprivation? What were the immigrant's social and health characteristics prior to immigration? What were the attitudes of the host society--that is, what degree of perceived prejudice and discrimination met the new arrival? What kinds of support networks were available to the newcomers? Did the immigrant group meet some need in the host society not being met by its own members? How great were the cultural differences between the immigrant and host societies? What were the age, sex, and socioeconomic status of the immigrant group? What previous contacts did the host society have with persons of similar racial, ethnic, and religious backgrounds? Did these contacts reduce or exacerbate prejudice, discrimination, and conflict?

In approaching these issues, we must distinguish between the objective conditions faced by an immigrant and the subjective interpretations attributed to them since to focus exclusively on one or the other within the context of social stress analyses could lead to erroneous conclusions. Immigration is a complex and multisystemic phenomenon which can disrupt the mental health and social well-being of those caught up in it. However, immigration also improves the quality of life for many. Further careful research will be required if we are to meaningfully address the questions we have raised. This task may seem overwhelming, but we can find encouragement in recent conceptual and methodological advances which have generated new data bases covering the Hispanic populations of the United States. These include the Hispanic Health and Nutrition Examination and the Epidemiological Catchment Area Project. Both these studies have supplemented our previous reliance on populations in treatment by producing prevalence estimates of diagnostic and nondiagnostic psychopathology for general populations. This development provides the basis for moving away from simple explanatory schemes which characterized many of the pioneering research efforts in this area. The use in future research of comparable diagnostic and nondiagnostic measures, as well as the use of other standardized measures, will clarify many of the unresolved issues in the area of Hispanic immigration and mental health.

APPENDIX

U. S. Immigration—A Brief History

The United States is a nation of immigrants. It was founded by immigrants and has continued to attract large numbers of immigrants ever since. Between 1820 and 1981 more than 50 million persons came to this country. While we no longer have the huge influx of immigrants which marked the 18th and early 19th centuries, the flow of immigrants remains relatively high.

Immigration to the United States can be divided into four time periods. The first phase, between 1780 and 1830, involved small numbers of immigrants arriving almost entirely from English-speaking countries. Fewer than 200,000 persons came during these four decades.

The second phase, between 1830 and 1880, consisted largely of persons from the British Isles, Germany, and Scandinavia. About 600,000 immigrants were admitted between 1830 and 1840. This number increased sharply during successive decades and averaged more than 2 million persons every decade between 1840 and 1880.

The third phase, between 1880 and 1924, saw continuing high rates of immigration. Nearly 9 million immigrants arrived between 1901 and 1910 alone. This was also a time of increasing legislation designed to regulate the flow of immigrants. In 1882, Congress passed the Chinese Exclusion Act to restrict immigration from the Orient, especially of Chinese. Congress enacted a series of restrictive immigration laws between 1921 and 1924 designed to prohibit the admission of some individuals and to establish quotas for nations and geographic regions.

The restrictions enacted during this period were the first systematic Federal efforts to control the number and type of immigrants. Laws during this era attempted to exclude contract laborers; persons from Southern, Central, and Eastern Europe; the insane, paupers, and criminals.

The fourth stage of immigration occurred between 1925 and the present. The Immigration and Nationality Act of 1952 simplified some aspects of the 1921-24 legislation and altered the quotas which discriminated against Southern, Central, and Eastern Europeans. These quotas were abolished in 1965 and a new system of allocation was established. Under the 1965 law, 170,000 immigrants from outside the Western Hemisphere are admitted annually, as well as 120,000 persons from the Americas.

The immigration laws passed in 1965 established the following elaborate order of preference for those admitted: (1) those with immediate families already in the country; (2) those with professional skills needed in the United States; (3) highly skilled workers who do not pose a threat to the jobs of U.S. citizens; and (4) those confronted by political, religious, or racial persecution in their own countries. (For a review of United States immigration policies see: Gordon and Rosenfeld [1959]; and Kansas [1968].)

This legislation regulates the number of immigrants to the United States, but does not prohibit their coming. Between 1970 and 1980 about 5 million persons were granted immigrant status (Newspaper Enterprise Association 1985). This included about 800,000 persons from Europe; 1.6 million from Asia; 2 million from other Western Hemisphere countries; and 125,000 from Africa, Australia, New Zealand, and Oceania. About 640,000 immigrants arrived from Mexico, nearly twice as many as from any other nation (Newspaper Enterprise Association 1985). About one-third of the 14.6 million Hispanics living in the United States in 1980 resided in California, and most of these were of Mexican heritage (U.S. Department of Commerce 1980).

This continuing influx of immigrants has prompted considerable concern on the part of many groups representing various political, economic, and social interests in public policy regarding immigration. In fact, proposed immigration legislation became an issue in the 1984 Presidential campaign. In June 1984, the House of Representatives passed a compromise bill that would have provided legal status or amnesty to millions of aliens who had established residency here before 1982. However, the bill did not pass in the Senate and failed to become law. The proposed legislation was strongly opposed by Hispanic and other minority groups who viewed as discriminatory provisions calling for verification of citizenship among suspect ethnic groups or certification of employability prior to their being hired. The 99th Congress may attempt to enact a similar bill, but it will be lobbied heavily by powerful groups with conflicting interests.

In addition to the foreigners granted immigrant status, many individuals gain entry without documentation or as refugees. In 1983, for example, more than a million persons were granted asylum in this country (Newspaper Enterprise Association 1985). In addition, estimates for the undocumented population range from 4 to 12 million. These persons add to the large population pool that may be at especially high risk for mental and physical health problems. The scientific determination of the magnitude and character of these problems represents a fertile field of investigation for epidemiologists and other researchers. In addition, the development of mental health and other human service programs capable of meeting the needs of this special immigrant population represents a formidable challenge to health planners and providers and to those responsible for establishing relevant public policies.

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CHAPTER 5

LIFE EVENTS AND STRESS IN MEXICAN-AMERICAN CULTURE*

Richard L. Hough

In this chapter we discuss some implications of recent research on stressful life events and their special relevance to mental health outcomes for Mexican-Americans. We also present a paradigm for assessing intervention strategies that embodies the principles of sociopsychological stress modeling. This paradigm should prove useful in designing future research as well as in evaluating prevention and treatment strategies for persons at high risk for mental health problems. Researchers have found a significant, if modest, positive relationship between the number of life events and the number of symptoms of mental disorder a person reports and, perhaps, the likelihood of the onset of a diagnosable disorder. Therefore, one approach to improving the mental health status of Hispanics (or any other group) is for health care delivery systems to help clients learn to manage the number of stressful life events they experience, thereby preventing the onset of mental health problems.

Although this interpretation of life events research and its implications for mental health care and prevention may seem naive and even gratuitous, it contains enough kernels of accuracy to be taken seriously. Much of the popular self-help literature on the market today, for example, advocates monitoring the number of life events (and, presumably, the amount of stress) one generates for oneself to make sure their cumulative impact does not reach dangerous levels. In fact, the State of California has attempted to convey this message to the public via a large mass media campaign.

Nevertheless, such interpretations of stress research and its preventive implications are simplistic. By employing very simple models to interpret complex etiological processes, the targeting of preventive health care delivery efforts is drawn very broadly--even to the point of targeting virtually the entire population of a State via mass communications media. The underlying assumption--that the message is important to a significant portion of the population throughout the State—makes the intervention effort unwieldy and its cost-effectiveness almost impossible to determine.

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Unfortunately, this kind of interpretation and use of research findings typifies much of the communication between social science researchers and mental health program and policy developers. When social science results find their way into the policy and treatment arenas at all, the transition from data to application is often tenuous or simplistic. The fault is not entirely that of the researchers, policymakers, health care providers, or consumers. Much research in the area of life events is itself simplistic, making it difficult to generate policy recommendations with much more precision than the kind of preventive program funded by the State of California. At the same time, the more sophisticated research and modeling concerning the effects of life stress on mental disorder is often reported in a scientific style that is difficult to translate into practical terms. One problem has been the absence of a paradigm to help interpret the implications of research results for health care services delivery.

In this chapter, we attempt to explain the research findings on the linkages of stress resulting from life events and mental health with special reference to Hispanic populations. We proceed in three steps. First, we summarize the literature on the relationship of life events to mental health using a theoretical model that can more accurately target foci for interventions than the simplistic model above. Second, we survey the life events literature that focuses on Hispanics. Finally, we explore the implications of that literature for mental health care delivery using a formal implications assessment paradigm similar to that suggested by Hough (1981).

Life Events in Relationship to Psychiatric Disorder

From the perspective of the social scientist, the oversimplified version of the life events literature has at least three problems:

1. it treats life events as an undifferentiated, unidimensional construct;

2. it treats psychiatric disorder similarly as an undifferentiated, unidimensional variable; and

3. it ignores all the possible mediating variables which might affect the relationship between life events and mental health problems.

The literature has now become sophisticated enough that more precision concerning the linkages between life events and mental disorder can be reached. Ideally, the literature may eventually specify what kinds of events, under what conditions, are linked with what disorders, for what kinds of people.

Much of the research on life events-illness linkages in the last two decades has stemmed from the adaptation by Rahe and his associates (Holmes and Rahe 1967; Rahe and Arthur 1978) of the work initiated by Hinkle and Wolff (1957). Their model suggests that life changes cause stress because they disrupt established behavioral patterns. In reaction, the individual activates psychological and other coping efforts. Illness ensues when the amount of change required overwhelms these coping capabilities. Rahe and his associates captured much attention and instigated a great deal of research with an early breakthrough measuring the relative amount of change required by specific events in terms of the number of "life change units" compared to a criterion event (marriage).

Rahe's conceptualization of life events, however, is unidimensional. That is, he sees life events varying only as to the amount of change they require. A large number of reports (Hudgens 1970; Morrison et al. 1968; Dohrenwend 1971; Dohrenwend 1973; Myers et al. 1971; Myers et al. 1972; Myers et al. 1974; Coates et al. 1969; Fontana et al. 1972; Smith 1971; Unlenhuth et al. 1975; Marx et al. 1975; Miller et al. 1976; Parker et al. 1976; Payne 1976; Clum 1976; Crandel and Lehman 1977; Garrity et al. 1977; Marx et al. 1977; Schwartz and Myers 1977; Wildman and Johnson 1977; Eaton 1978; Mellinger et al. 1978; Thoits 1978) have found that such measures of life change are associated with scores on psychiatric screening scales which are themselves nonspecific and which are usually treated as unidimensional. These scales consist of lists of symptoms scored by simply totaling the number experienced in a given length of time (see chapter 2). High scores on such scales furnish no direct evidence concerning the likelihood of the presence or absence of specific disorders. High scores are imperfectly associated with the presence of specific diagnosable disorders, but their primary value is in indicating that the individual likely has a mental health problem of some sort and of some severity. The scales have typically been validated on the basis of their ability to distinguish treatment respondents from controls.

Studies relating undifferentiated life change to undifferentiated propensity to psychological disorder without controlling for possible intervening variables have resulted in simplistic interpretations such as we described at the outset of this chapter. Virtually the only intervention which can be suggested on the basis of such research is to limit the number of life events to promote greater mental health.

More recently, research has begun to focus on the relationship of more specific types of life events to more specific types of disorder. For example, life events which most people judge to be negative (e.g., death of a spouse, loss of income, etc.) are more strongly related to disorder than those which most people judge to be positive (e.g., marriage, job promotion, etc.). Similarly, events most people acknowledge to be beyond their control (e.g., natural disasters, death of a family member, etc.) are more strongly linked to disorder than those within their control (e.g., a vacation) (Briscoe and Smith 1974; Dohrenwend 1974; Krantz et al. 1974; Cassel 1975; Cochrane and Robertson 1975; Theorell 1976; Fairbanks and Hough 1979).

In addition to differentiating types of events which may be related to disorder, recent research has also examined the relationship of events to specific types of disorder. Although this effort is as yet tentative at best, it appears that life events--particularly negative ones beyond a person's control--are linked with such specific forms of psychiatric impairment as anxiety (Miller et al. 1976; Schwartz and Myers 1977; Lauer 1973; Reavley 1973; Gersten et al. 1974; Vinokur and Selzer 1975; Ingham and Miller 1976; Sarason et al. 1978; Roth and Hough 1979), self-destructive tendencies (Gersten et al. 1974; Vinokur and Selzer 1975; Paykel et al. 1975; Paykel 1978), and depression (Miller et al. 1976; Schwartz and Myers 1977; Vinokur and Selzer 1975; Paykel 1978; Brown et al. 1973; Paykel and Weissman 1973; Paykel et al. 1974; Warheit 1979). Unfortunately, we cannot yet estimate the relative degree of relationship of specific life event clusters to specific disorders, although the linkages of life events in general to depression and anxiety are better documented than such linkages to schizophrenia or antisocial personality, for example. The availability of more diagnostically oriented survey research instruments such as the Diagnostic Interview Schedule (DIS) (New York State Psychiatric Institute 1975; Spitzer et al. 1978; Feighner et al. 1972; Endicott and Spitzer 1978; Weissman et al. 1978) will undoubtedly encourage more studies of the role of life events in the etiology of specific psychiatric disorders.

The literature is becoming more precise, as well, in considering the impact on mental disorder of the interaction of life events with various mediator variables. Until recently, most of the literature reported the relationship of sex, socioeconomic status variables, age, and racial/ethnic status to the rates of impairment or life events on a one-to-one level (e.g., Dohrenwend and Dohrenwend 1969, 1974a, 1974b, 1976; and Dohrenwend 1975). Few researchers (Unlenhuth et al. 1974; Wildman and Johnson 1977; Eaton 1978; Warheit 1979) have tried to assess the relative contributions of various sociodemographic or life event variables to variations in disorder.

Researchers are currently suggesting a wide range of mediator variables which may interact with each other, with sociodemographic characteristics, or with life events in ways that correlate with psychiatric disorder. Figure 1-1 in chapter 1 provides an overview of the kinds of variables that are often researched or discussed. These variables include persistent life strains (e.g., Pearlin and Schooler 1978), social support (e.g., Cobb 1976; Kaplan et al. 1977); utilization of health care services (e.g., Anderson et al. 1978; Tessler et al. 1978); coping strategies (Pearlin and Schooler 1978; Monat and Lazarus 1977); and personality variables such as powerlessness, lack of mastery, and externality of control (e.g., Rabkin and Struening 1976; Lefeourt 1976), all of which are discussed in more detail in chapter 1.

This list of variables that may interact with the stress of life change to affect mental health is obviously illustrative and not exhaustive. The point is that multivariate models employing life events as one predictor of disorder among several are likely to be more precise predictors than the simpler univariate models. For example, if the data were available, one might find that negative life events beyond the individual's control are particularly related to the onset of alcohol abuse or dependence among young, male Hispanics who have a history of antisocial behavior, who are relatively unacculturated to American society, who have strong feelings of powerlessness, and who lack effective instrumental coping strategies. If such a group could be identified as at particular risk for a specific disorder, preventive intervention programs might be targeted very precisely and more effectively than the mass media approach described previously.

Life Events Research and Hispanics

Remarkably little research exists on which to base any generalizations about manifestations of, or any variations in, the life event-illness relationships that are specific to Hispanics. Such research as there is has focused on two disparate questions: (1) do Hispanics rate the severity of specific life events differently from non-Hispanics? and (2) what are the life event-illness relationships among Hispanics?

Concerning the first question, Fairbank and Hough (1981) recently reviewed the available literature on cross-cultural differences in perceptions of life events. Their conclusions agreed with that of Janney et al. (1977) that persons from materially disadvantaged ethnic groups within the United States and from less developed nations tend to rate events having to do with economic and bodily necessity higher (i.e., more stressful), and those having to do with personal or interpersonal interaction issues lower (i.e., less stressful) than do more materially advantaged persons. Komaroff et al. (1968) found, for example, that blacks, Mexican-Americans, and Asians in Los Angeles rated events quite differently from the Anglo population of the Northwestern United States studied by Holmes and Rahe (1967). Eight of the fourteen items on which there were significant differences in ratings had to do with labor, income, and living conditions—events viewed by the minority groups as requiring more change.

Janney et al. (1977) compared life event ratings in two Peruvian cities with those obtained in El Salvador and Spain. Again, they found events having to do with bodily necessities ranked relatively high and those having to do with personal/ interpersonal relationships ranked relatively low by these groups in comparison with Anglos. Rosenberg and Dohrenwend (1975) similarly found, in their New York study, that Anglos rated four events having to do with interpersonal matters higher than Puerto Ricans.

In 1975, Hough et al. (1981) surveyed a random sample of 350 adults in El Paso, Texas, and Ciudad Juarez, Mexico, to determine if Mexican-origin respondents differed significantly from Anglos in their perception of the change required by various life events. Respondents rated a list of 95 events on a seven-point scale ranging from 1 for events requiring the least amount of change to 7 for those requiring the most change. The researchers found significant differences in ratings for the events listed in table 5-1.

Some interesting variations emerged, most of which can be explained on the basis of social-environmental differences between the populations. Mexican respondents tended to rate events involving social advancement as requiring significantly more change than Anglos. Experiences that would be considered normal and even positive for an upwardly mobile upper-middle-class Anglo respondent were rated as stressful by the Mexicans in our sample. Contrary to our expectation, the relatively disadvantaged Mexican population did not rate the negative, instrumental task-related events higher than the Anglo respondents.

Table 5-1. Events upon which Anglo and Mexican change ratings differed

	Rating shift*
A. Events rated by Mexican respondents as requiring more change	
1. Move to better neighborhood nearby	1.31
2. Marked increase in income	1.18
3. Small mortgage or loan	1.06
4. New club or civic group membership	1.05
5. Improved health of family member	.99
6. Change in church attendance	.94
7. Recognition for outstanding accomplishment	.91
8. Vacation	.87
9. Job promotion	.83
B. Events rated by Anglo respondents as requiring more change	
1. Death of spouse	1.72
2. Revocation of driver's license	1.61
3. Death of pet	1.31
4. Deportation	1.26
5. Marital separation	1.17
6. Major financial difficulty	1.02
7. Divorce or annulment	.95
8. Marriage of child with approval	.95
9. Retirement	.93
10. Move of adult into household	.91

*Rating shifts were the difference between the mean assigned to the event by Anglo and Mexican respondents. Rating shifts were taken to be significant if the minimum rating plus 2.5 times its standard error was less than the maximum rating minus 2.5 times its standard error. Note that the scores were analyzed in standardized form--not in terms of raw life change scores assigned by respondents.

Anglos, on the other hand, rated negative experiences involving social interaction within the nuclear family as the events requiring greater change. They rated divorce, separation, and death of a spouse as particularly major disruptions, the marriage of a child and the addition of another adult to the household, which can also be interpreted as disruptions in the structure of the nuclear family. Even the death of a pet, another event rated as stressful by the Anglo respondents, can disrupt a nuclear family's daily routine and structure.

Of the events rated by Anglos as requiring significantly more change, only two--loss of one's driver's license and deportation--were unrelated to nuclear family life. Anglos presumably rank the former as a more serious disruption because of the crucial role of the automobile in their daily lives--particularly in comparison to the average Mexican--and deportation higher because of the severe disruptions of life that event would cause in this population, most of whom have never had to even contemplate deportation.

As we would predict, then, Anglos tended to rate events having to do with interpersonal interaction as more stressful than functional or instrumental events. Only major financial difficulty, loss of transportation via an automobile, and deportation were exceptions to that pattern.

The ratings suggest, then, that Anglos were particularly anxious about changes having to do with the breakup of the fabric of the nuclear family whereas Mexican respondents were more concerned with events that would reflect upward economic and geographic mobility. These latter events entail a move out of the larger social structure upon which the Mexican respondents depend and live and thus represent a crucial disruption of that support structure.

Some 6 months after the rating survey, we resampled and surveyed the same populations to examine the relationships between ethnicity, life events, and illness. Those relationships have been examined in several papers (Hough et al. 1981; McGarvey et al. 1981; Graham et al. 1981). In general, the findings reinforce the notions suggested above--that the effects of life events on illness may vary depending on the social environment in which they are found.

Again, the life event list consisted of 95 items drawn from previous life event inventories and from our own pilot work with college student populations in El Paso. We asked whether each event happened in the last year not only to the respondent, but, as appropriate and reasonable, to the respondent's spouse, children, or someone else important to the respondent.

Before we examine the effects of life events on illness, it is useful to report on the frequency and patterning of life events by ethnicity. The data are examined for four ethnic/residential groups in El Paso and Ciudad Juarez. "Anglos" are second or later generation nonminority respondents living in El Paso and "Mexicans" are second or later generation Mexican origin respondents living in Ciudad Juarez. The two additional groups are first-generation immigrants from Mexico to the United States (labeled Mexicans in El Paso) and second or later generation Mexican-origin respondents living in El Paso (labeled Mexican-Americans). We summarize which events our respondents most frequently reported as having happened to them in the last year in tables 5-2 through 5-5. We show both the percentage of respondents reporting the event and the rank order of that event for the subgroup (Mexican-Americans, Mexicans in El Paso, Mexicans in Ciudad Juarez, and Anglos).

Table 5-2 focuses on events happening to the respondent. Overall, the rank ordering of the symptoms by the percentage of respondents reporting them was remarkably similar across the four subgroups. The percentages of respondents reporting particular events are most similar between the Mexican-Americans and Mexicans in El Paso groups except that more of the Mexican-Americans reported starting school and started to exercise whereas more of the latter group reported they started receiving welfare and increased their club and social activities. Overall, the Anglos reported more events, particularly those having to do with upward mobility (e.g., a move to a better residence, large installment purchase, substantial increase in wages, and receipt of a small mortgage or loan. Anglos also reported more often than the other groups that they moved to a similar neighborhood and that they had a new adult move into the household. Mexican respondents in Ciudad Juarez differed the most from the others with very low percentages reporting life events involving mobility and more reporting pregnancy, more arguments with their spouse, and a new job in the same line of work.

We summarize the data concerning events happening to spouses, children, and significant others respectively in tables 5-3, 5-4, and 5-5. So few events were reported for spouses that comparisons are almost meaningless. We see some uniformity, however, across the four groups in terms of which events were most often reported. The Anglo and Mexican-American respondents reported more events for their spouses than did the Mexican respondents in either El Paso or Ciudad Juarez (see table 5-3).

Table 5-2. Frequency of life events happening to respondent

Life event	Mex-Am (N=108) %	Rank	Mex-EP (N=89) %	Rank	Mex-J (N=133) %	Rank	Anglos (N=133) %	Rank
Vacation	44	(1)	38	(1)	19	(1)	31	(2)
Moved to same type neighborhood	22	(2)	25	(2)	18	(2)	32	(1)
Moved to a better residence*	20	(3)	19	(3)	16	(3)	31	(2)
New hobby, recreation	15	(4)	12	(6)	5		9	(9)
Large installment purchase	12	(5)	14	(5)	8	(5)	22	(4)
Substantial increase in wages	12	(5)	6		5		20	(5)
Started school/training program after long absence	10	(7)	*		*		9	(9)
Started exercising a lot	9	(8)	*		*		*	
Caught in minor violation of the law	9	(8)	9	(10)	*		6	
Family member died	9	(8)	9	(10)	8	(5)	8	
Started receiving welfare, food stamps	6		15	(4)	*		*	
Increase in club/social activities	*		12	(6)	5		7	
Loss/theft of personally valuable object	8		10	(8)	*		8	
Friend died	6		10	(8)	6	(9)	10	(8)
Relationship with spouse improved	*		*		9	(4)	18	(6)
Pregnant	5		*		8	(5)	*	
Changed to more secure job	7		5		7	(8)	5	
Started receiving unemployment compensation	7		5		6	(9)	*	
More arguments with spouse	*		*		6	(9)	6	
New job, same line of work	*		*		6	(9)	8	
Small mortgage or loan	5		5		*		11	(7)
New adult moved into household	*		*		*		9	(9)

* Fewer than 5 percent reporting.

Table 5-3. Frequency of life events happening to spouses

	Mex-Am (N=108)		Mex-EP (N=89)		Mex-J (N=133)		Anglos (N=133)	
Life event	%	Rank	%	Rank	%	Rank	%	Rank
Vacation	18	(1)	16	(1)	3	(5)	16	(1)
Substantial increase in wages	7	(2)	3	(4)	3	(5)	6	(4)
New hobby, recreation	5	(3)	*		*		*	
New, more secure job	5	(3)	*		4	(2)	3	(8)
Large installment purchase	5	(3)	*		4	(2)	8	(2)
Increase in club, social activities	5	(3)	*		*		*	
Trouble with boss	4	(7)	*		3	(3)	6	(4)
Married	3	(8)	7	(2)	4	(2)	5	(7)
Serious physical illness	3	(8)	*		5	(1)	7	(3)
Serious injury	3	(8)	*		*		3	(8)
Started school/training program after long absence	3	(*)	*		*		6	(4)
New job, different line of work	3	(8)	*		*		3	(8)
Family member died	3	(8)	*		*		*	
Physical health improved	3	(8)	*		*		*	
Returned to high school	3	(8)	*		*		*	
Started exercising a lot	3	(8)	*		*		*	
Recognized for something in school/training program	*		5	(3)	*		*	
Loss/theft of personally valuable object	*		3	(4)	*		*	
Problems in school	*		*		3	(5)	*	

* Fewer than 3 percent reporting.

Respondents reported slightly more events for their children than for their spouses--with Anglos, again, reporting the most (see table 5-4). Anglos were particularly high reporters on several positive events--receiving recognition for doing something outstanding in a school or training program, a large installment purchase, and a new job in a different line of work. They also reported more serious injuries to their children. The only events reported by other groups with noticeably greater frequency than the Anglos involved bearing children ("second or later child" for Mexicans in El Paso and "first child" for Mexicans from Ciudad Juarez).

Overall, respondents reported more events happening to significant others than to themselves (table 5-5). Although Mexican-Americans had reported relatively few events happening to themselves, their spouses or their children, they reported far more events happening to significant others than did the other subgroups. Life passage events such as graduating from a school or training program, pregnancy, starting to work for the first time, and getting married ranked particularly high. The only negative event they reported often was having to take a worse job. Mexicans in Ciudad Juarez ranked high in reporting menopause. Other than that we see no remarkable differences.

A major problem in the measurement of life change is the relatively low prevalence of most life events. That is reflected in the data reported thus far. Only a few of the events happened to more than 10 percent of the respondents during a year and most of them happened to fewer than 5 percent. Further, many of the events that happened more frequently were positive events whereas research has demonstrated that negative events have a greater negative impact on mental health status. This problem is underlined further when we examine the frequency of the more serious negative events on our list (table 5-6). Such events most frequently reported for respondents (R) were the death of a friend (6-10 percent), and the death of a family member (8-9 percent). Most of the serious negative events happened to only 1 to 2 percent of the respondents. Respondents reported even fewer serious negative events happening to spouse (S) and child (C). They reported more such events happening to significant others (O), particularly divorce or separation and serious physical illnesses or injuries.

Table 5-6 also reflects some ethnic differences in the frequency of serious negative life events. Overall, the differences across groups in the number of such events happening to the respondent, spouse, and children did not vary appreciably across the groups. However, for the respondents themselves, Anglos did report slightly more divorce or separation and cuts in wages

Table 5-4. Frequency of life events happening to children

Life event	Mex-Am (N=108)		Mex-EP (N=89)		Mex-J (N=133)		Anglos (N=133)	
	%	Rank	%	Rank	%	Rank	%	Rank
Started work for the first time	10	(1)	9	(2)	11	(2)	9	(3)
Graduated from school/training program	9	(2)	14	(1)	12	(1)	8	(4)
Vacation	6	(3)	6	(4)	*		6	(7)
Recognized for something in school/training program	6	(3)	9	(2)	5	(3)	14	(1)
Serious injury	5	(5)	3	(8)	*		11	(2)
Large installment purchase	4	(6)	*		*		5	(10)
Moved out of parental household	3	(7)	6	(4)	*		7	(6)
Problems in school/training program	3	(7)	*		5	(3)	8	(4)
New hobby/recreation	3	(7)	4	(7)	*		**	
Entered love affair while not married	3	(7)	*		*		6	(7)
Dropped out of school/training program	3	(7)	*		3	(7)	**	
Started school/training program	3	(7)	*		3	(7)	**	
Divorced	3	(7)	*		*		**	
Moved to a better residence	*		3	(8)	3	(7)	**	
Had second or later child	*		5	(6)	*		**	
Trouble with friends	*		3	(8)	*		**	
Got out of jail	*		3	(8)	*		**	
First child	*		*		5	(3)	**	
New, more secure job	*		*		4	(6)	5	(10)
Pregnant	*		*		3	(7)	**	
New job, different line of work	*		*		*		6	(7)

* Fewer than 3 percent reporting.
**Fewer than 5 percent reporting.

Table 5-5. Frequency of life events happening to significant others

Life event	Mex-Am (N=108)		Mex-EP (N=89)		Mex-J (N=133)		Anglos (N=133)	
	%	Rank	%	Rank	%	Rank	%	Rank
Graduated from school training program	26	(1)	6	(10)	13	(2)	17	(1)
Pregnancy	22	(2)	14	(2)	12	(3)	14	(3)
Started work for the first time	20	(3)	11	(4)	10	(5)	8	
Married	18	(4)	7	(9)	7		10	(6)
Had to take a worse job	16	(5)	6		6		7	
Serious physical illness	13	(6)	9	(6)	12	(3)	16	(2)
Had second or later child	13	(6)	16	(1)	9	(8)	14	(3)
Physical health improved	12	(8)	10	(5)	14	(1)	9	(7)
Serious physical injury	11	(9)	5		10	(5)	5	
More arguments with spouse	11	(9)	7	(9)	8		*	
Returned to high school	11	(9)	7	(9)	*		5	
Vacation	9		13	(3)	5		9	(7)
Recognized for something in school/training program	7		9	(6)	8		9	(7)
Started receiving welfare, food stamps	7		8	(8)	*		7	
Menopause	3		7	(9)	8		*	
Applied for citizenship	*		*		10	(5)	*	
Large installment purchase	9		6		9	(8)	9	(7)
Relationship with spouse improved	7		*		9	(8)	*	
Entered love affair while not married	9		*		*		11	(5)

* Fewer than 5 percent reporting.

Table 5-6. Percentage* of respondents reporting serious negative life events

Serious negative life event		Mex-Am (N=108)	Mex-EP (N=89)	Mex-J (N=133)	Anglos (N=133)
Death of spouse	R	0	3	1	1
	C	2	0	0	1
	O	3	1	2	3
Death of child	R	0	1	2	0
	S	1	0	0	2
	C	1	0	0	2
	O	1	1	0	2
Death of family member	R	9	9	8	8
	S	3	2	2	2
	C	0	1	0	0
	O	1	1	3	0
Death of friend	R	6	10	6	10
	S	0	0	2	0
	C	0	0	0	0
	O	4	4	0	1
Abortion/miscarriage	R	1	2	1	0
	S	1	0	2	2
	C	2	0	1	3
	O	2	2	1	3
Divorce/separation	R	2	1	1	5
	C	4	1	2	5
	O	18	3	8	12
Serious physical illness/injury	R	3	2	4	5
	S	6	2	8	10
	C	7	6	2	13
	O	24	13	22	21
Foreclosure/repossession	R	2	0	0	0
	S	2	0	0	0
	C	2	1	0	0
	O	7	8	9	3

Table 5-6 continued

Serious negative life event		Mex-Am (N=108)	Mex-EP (N=89)	Mex-J (N=133)	Anglos (N=133)
Cut in wages/financial loss/ loss of property	R	2	0	3	8
	S	2	0	0	7
	C	0	0	0	1
	O	4	4	6	8
Receipt of unemployment compensation	R	7	5	6	4
	S	2	0	0	1
	C	0	0	0	2
	O	8	3	6	10
Demotion to worse job	R	0	2	3	2
	S	2	1	2	1
	C	0	1	2	2
	O	6	3	3	2
Failure in school/training program	R	0	1	2	0
	S	0	1	2	0
	C	1	1	2	1
	O	1	1	3	1
Assault	R	2	1	2	1
	S	0	0	0	1
	C	1	1	1	0
	O	3	6	5	4
Loss or theft of personally valuable object	R	8	10	4	8
	S	2	3	1	2
	C	2	1	2	1
	O	8	6	5	9
Arrest	R	1	0	2	1
	S	0	0	1	0
	C	1	0	0	2
	O	6	4	6	3

* Percentages rounded to nearest whole.

or financial or property loss. Mexicans in El Paso were more likely to report death of spouse and loss or theft of a personally valuable object. Mexican-Americans too reported slightly more foreclosures or repossessions. Mexicans in Juarez were more likely to report a demotion or failure in school or a training program.

When events happening to respondent, spouse, children or significant others were all taken into account, Anglos were more likely to report an abortion or miscarriage, death of a child and a serious physical illness or injury. Mexicans in El Paso were most likely to report death of a friend and a foreclosure or repossession. Mexican-Americans were most likely to report a divorce or separation and Mexicans in Juarez to report a demotion or failure in school or a training program. Anglos and Mexican-Americans were most likely to report receiving unemployment compensation.

Again, the differences in table 5-6 are quite small, and, with the relatively small sample sizes, they ought to be taken cautiously as indicators of possible tendencies.

In sum, the differences in the frequency of life events across the four groups of respondents were not dramatic. Overall, Anglos reported slightly more events, especially of positive upwardly mobile kinds of changes (e.g., moving, increased income, major new installment purchases, mortgages) for the respondent and divorce or separation and serious illness or injuries among significant others. Mexican-Americans more often reported events happening to significant others, particularly graduation from a school or training program, a first job, marriage, pregnancy, and being forced to take a worse job.

Based on these data, one might expect life events to be more predictive of mental health problems among Anglos than among the three Hispanic groups. Further, based on our review of the literature, we would expect Anglos to find life events involving interpersonal relationships more stressful whereas Mexican respondents would find instrumental events more problematic. The data, while not entirely consistent with these notions, were most interesting.

The researchers undertaking the life stress-illness research project scored events in several different ways. First, we gave the events culturally appropriate weights based on the rating survey results previously reported. Second, we divided the events into several major substantive categories such as work, family, economics, etc. and summed the number of events in each category. Finally, we divided the events into more qualitative categories (e.g., negative vs. positive, those likely within a person's control and those not) and summed the number of events. We found that the total number of events reported was a slightly better predictor of symptoms of several different types of illnesses than the number of events along any particular dimension (McGarvey et al. 1981). These results held across the four ethnic groups. Ethnic differences therefore did not appear to change, in any significant way, the life event-illness relationship.

We did, however, find some interesting differences between the ethnic groups when we divided the events into those happening to respondent, spouse, children, and significant others. We examined the relationship between the number of events reported for each of those categories and the respondents' scores as to symptoms of illness. We report the overall results across the four ethnic groups in table 5-7.

Table 5-7. Structural equation regression coefficients for life events and sociodemographic variables in relation to four dimensions of illness behavior

	Illness dimensions[1]			
	Cold/ respiratory symptoms	Anomia	Psychological symptoms	Physical symptoms
Respondent events	.17	.17	.26	.30
Child events	n.s.	n.s.	n.s.	n.s.
Spouse events	.20	n.s.	n.s.	.21
Other events	.14	n.s.	.31	.29
Sex (male Hispanic)	n.s.	.14	.23	n.s.
Age	n.s.	n.s.	n.s.	.20
Socioeconomic status	n.s.	-.62	n.s.	-.29
North/south origin	n.s.	n.s.	n.s.	n.s.
Marital status	n.s.	n.s.	n.s.	n.s.

*In terms of 6 weights in a LISREL Model reported in Hough et al. (n.d.). Effects of all other variables in the model are controlled.

Some interpretation of the dependent variables in table 5-7 is required. The life change-illness survey asked many questions concerning the presence of symptoms of both mental and physical health problems. We pooled the symptoms and derived four dimensions of illness behaviors using an exhaustive set of factor analytic and structural equation modeling procedures (Aneshensel et al. 1981). The four dimensions used as the dependent variables were cold/respiratory symptoms, other physical illness symptoms, anomia (a set of symptoms reflecting normlessness and antisocial behavior), and psychological symptoms. The results we report in table 5-7 are from a structural equation analysis of the relationships, the full procedures of which are reported in another paper (Hough et al. 1981). Basically, however, we controlled all the effects of each variable in the model when examining the effects of the others. We found that events happening to the respondent were the most generally predictive variable across the illness dimensions. Events happening to others were the next most generally predictive.

We comment at length on some effects of demographic factors in the papers noted above (Hough et al. 1981; McGarvey et al. 1981; Graham et al. 1981). In brief summary, we found that males were more likely than females to experience anomia and psychological symptoms, whereas no sex differences were found for cold/respiratory symptoms or other physical symptoms. Age was positively associated with physical symptoms but not with the other illness dimensions. Finally, socioeconomic status was negatively associated with anomia and physical symptoms, but not with cold/respiratory or psychological symptoms.

When we examined the structural equation models within the four ethnic/residential groups, other interesting differences emerged. We summarize some of that data in table 5-8. We found respondent events to be important predictors of psychological symptoms in all four ethnic groups and good predictors of physical symptoms in two of the groups. However, events happening to others were not a statistically significant predictor of symptoms, except for Mexicans in Ciudad Juarez where it was by far the most important predictor of both physical illness and psychological symptoms, even after controlling for the effects of all other variables.

This finding--that for the Mexican respondents, life events happening to close friends or others outside of their immediate families was the most important predictor of illness symptoms--is perhaps the most interesting result of our study.

The question, then, is how to integrate the findings from these two sets of data--the rating and the incidence surveys. We

Table 5-8. Within-group structural equation regression coefficients for life events and sociodemographic variables in relation to two dimensions of illness behavior

	Anglos	Mexican-Americans	Mexicans in El Paso	Mexicans in Cd. Juarez
For psychological symptoms				
Respondent events	.253	.281	.310	.236
Spouse events	n.s.	n.s.	n.s.	n.s.
Child events	n.s.	n.s.	n.s.	n.s.
Other events	n.s.	.176	n.s.	.510
Sex	.281	n.s.	.298	n.s.
Age	n.s.	n.s.	n.s.	n.s.
Marital status	n.s.	n.s.	n.s.	n.s.
Socioeconomic status	n.s.	-.436	n.s.	n.s.
For physical symptoms				
Respondent events	.449	n.s.	.359	n.s.
Spouse events	.289	n.s.	n.s.	n.s.
Child events	n.s.	n.s.	n.s.	n.s.
Other events	n.s.	n.s.	n.s.	.427
Sex	n.s.	n.s.	n.s.	n.s.
Age	.297	n.s.	n.s.	n.s.
Marital status	n.s.	n.s.	n.s.	n.s.
Socioeconomic status	n.s.	n.s.	n.s.	n.s.

hypothesize that both reflect the greater significance of the extended social network systems to the Mexican respondents than to the Anglos; thus their disruption has a more significant impact on illness behavior of the Mexicans. This explanation is consonant with the Mexican respondents rating life events involving migration and social mobility as requiring more change since such events would disrupt their extended social networks. Anglos, on the other hand, rate events having to do with breakup of the nuclear family as requiring more change; for them we find that only events happening to the respondents and, to some extent, their spouses, significantly predict illness.

These findings suggest that the life event-illness linkages may vary by ethnic group, sex, age, and the way that these factors interact with one another. Judging by these preliminary findings, Mexican-Americans may resemble Anglos in this regard more than either group resembles Mexican respondents.

Implications for Services Delivery and Future Research

We suggested at the outset of this chapter that the implications of research concerning the effects of stressful life events on mental health for either treatment or preventive interventions are often unclear, at least partly because few paradigms exist to guide researchers, practitioners, and policymakers in their attempts to assess such implications. In this section we employ an intervention assessment paradigm (figure 5-1) as a means of clarifying some of the possible implications of our findings concerning the relationships between life events and illness among Mexican, Mexican-American, and Anglo respondents for the delivery of mental health care services.

Before we enter that discussion, several caveats are in order. First, our paradigm focuses only on mental health problems and interventions in contrast to some of the research we have cited which includes physical health problems as well. Second, our paradigm focuses specifically on the relationship of stressful life events to mental disorder. Other paradigms could focus on the relationships of other independent variables (e.g., social support) to mental disorder. Finally, to some degree, the paradigm has implications that take us beyond currently available data. Where that is the case, we provide hypotheses and discuss needs for future research.

The paradigm suggests several implications for health care providers in terms of both treatment and prevention. The research can be used to target high-risk groups and choose

Figure 5-1. An intervention implication assessment paradigm focused on life events and mental health problems among Mexican-Americans

		Implications for intervention			
		Intervention with the:		Service system changes in:	
Sociocultural variables	Target populations	Client	Client environment	Provider behavior	Organizational structure
I. Life Events (LE)	High life event stress	Lower life stress	Choose less stressful environment	Treat: Symptoms or illness; life events Empathy with life event stress	Improve accessibility: e.g., hours, location outreach, crisis intervention
II. Socioeconomic characteristics (SEC)					
(1) Race/ethnicity	Disadvantaged (e.g., Mexican-American)	-		Understanding of particular culture: language attitudes re: illness, mental health, symptoms, disclosure, health care utilization, treatment	Improved accessibility, outreach as above--for particular target population
(2) Age	Young/old/middle age*	-	Change opportunity structure		
(3) Sex	Female	-			
(4) Social Status	Lower	Education			
(5) SEC Interactions	E.g., lower status, recently immigrant M.A. women, 35-50	-			
III. SEC/LE Interactions	Lower status, recently immigrant M.A. women 35-50 with high life event stress	All of above	All of above	All of above	All of above

Figure 5-1 continued

Sociocultural variables	Target populations	Implications for intervention			
		Intervention with the:		Service system changes in:	
		Client	Client environment	Provider behavior	Organizational structure
IV. Mediators (MED)					
(1) Life strains/hassles	High	Strengthening knowledge of adaptive resources, social competence, self-efficacy and coping abilities	Lowering life strain, hassles	Understanding of and ability to use culturally appropriate and effective techniques for improving status on mediators	Improve accessibility, more outreach, particularly to improve status on mediators. E.g., use of lay intervenors for educational purposes
(2) Perceptions of availability of adaptive resources	Low				
(3) Objective availability of adaptive resources	Low				
(4) Social competence	Low				
(5) Self-efficacy	Low				
(6) Coping strategies	Few				
(7) Self-perception	Low				
(8) Acculturation	Low				
(9) MED variable interactions					
V. LE/SEX/MED Interactions	E.g., lower status, recently immigrant M.A. women, 35-50 with high life events and low social competence, self-efficacy and few coping strategies	Lower life event stress improve social competence, self-efficacy, introduce new coping strategies	Choose less stressful environment, change opportunity structure if possible	All of above	All of above

* Depending on study.

appropriate modes of intervention, provider behaviors and service organization structures.

1. **Life Events and Mental Health.** The paradigm suggests that we look first at the implications of the research findings on the simple linkage of life events and mental health problems. In terms of selecting target populations for health care interventions, our primary finding is that the number of stressful life events one experiences has a consistent, if moderate, positive relationship to various indicators of mental disorder and distress. This suggests that, for both treatment and prevention, persons experiencing many stressful events might be targeted as a high-risk population.

The implications for dealing with the stressed client are obvious, if not too specific. The health care provider should treat the symptoms or the disorder directly. In addition, the health care provider may choose interventions which change the client's behavior and/or environment in regard to life event stress. The provider may try to alleviate the degree of life event stress associated with the problem, and prevent the buildup of high levels of stress in the future. This might mean suggesting to the client, for example, changes in lifestyle, environment, or coping strategies and stress management which would lessen the level of stress. For intervention techniques directed at improving coping and stress management, one must draw on research literature other than that concerned specifically with the linkage between life events and mental health.

The major implication of the life stress-illness linkage for the health services provider is the importance of remaining sensitive to the role life stress might play in relationship to the symptoms observed in a client. Life stress might itself require direct "treatment" just as symptoms or diagnosed disorders require treatment, or awareness of it may simply help the clinician understand the significance of the symptoms as, for example, in adjustment disorders.

Finally, our paradigm suggests that service structures may have to be altered to effectively reach persons experiencing high amounts of stressful change (the target population). This might include flexibility in terms of hours and location, development of outreach treatment and education programs, and effective short-term crisis intervention modes of therapy. Certainly, individuals experiencing high levels of life change may not most effectively be reached by traditional large-scale institutional or office-based programs with their constraints on eligibility requirements, hours of service, and appointment requirements.

2. Socioeconomic Characteristics. Up to this point we have only been concerned with life events, the first variable in our paradigm. We turn now to the second section of the paradigm—the implications of research findings on the linkages of socioeconomic characteristics to mental health problems. The paradigm does not include all of the possible characteristics which might be discussed. Rather, we focus on race/ethnicity (particularly on Hispanic/Anglo comparisons which are the major focus of this chapter and about which relatively little is known) and on sex, age, and social status (variables that have often been researched).

While we have not fully reviewed the literature concerning relationships of sex, age, and social status to mental disorder in this chapter, certain patterns are well-known (Dohrenwend and Dohrenwend 1969; Dohrenwend et al. 1980). For example, mental disorders are more prevalent among the young and old than the middle-aged, among females than males, among the unmarried than the married, and among lower social status groups than higher status ones. Thus the young and old, females, unmarried persons, and persons of lower socioeconomic status constitute high-risk populations on which treatment and prevention programs might be targeted.

Apart from life events, the other major variable we have considered in this chapter is race/ethnicity, specifically with respect to Mexican-American populations. Although we have not specifically examined the research literature concerning the prevalence of mental disorder and psychological distress among Mexican-Americans, several recent reviews have suggested that the literature is equivocal (Hough et al. 1983; Karno et al. forthcoming; Burnam et al. forthcoming). Thus the Mexican-American population as a whole may not be a high-risk group for which special targeting of mental health services would be warranted.

However, if we consider the interaction of the socioeconomic variables, more specific high-risk Mexican-American groups emerge. For example, Vega et al. (1984, 1985, in press) have found that recently immigrant Mexican male farmworkers and low socioeconomic status middle-aged (40-60) Mexican-American women are at particularly high risk for elevated scores on symptom screening scales.

Examining the interaction between socioeconomic characteristics in terms of their impact on mental disorder can lead to much more specific targeting of high-risk groups within the Hispanic population. More precise targeting does not, however, necessarily provide more insight into appropriate intervention or prevention strategies.

Thus, knowing that middle-aged, recently migrant Mexican women as a group are particularly vulnerable to depression may lead to more intensive, relevant interventions than can be designed for a larger, less-focused target population. However, the research data which identify this sociocultural group as high risk have no direct implications for what particular intervention strategies may be most effective. Certainly most of the attributes that make members of the group high risk (i.e., sex, age, migration status, and ethnicity), cannot be changed. Socioeconomic status is also not likely to change. Without further information on what modifiable risk factors characterize those group members prone to mental disorders, program and policy development would have to follow the same general strategies outlined above--structuring delivery systems to be accessible to the target population and providing empathetic health care personnel who know enough about the target population to understand something of the cultural and social environmental context in which symptoms develop and have to be treated. The difficulty of making these kinds of changes in the service system should not, of course, be underestimated. They would require training delivery personnel familiar with the culture of the target population as mental health professionals or, alternatively, training mental health professionals in the cultural orientations of poor, recently immigrant Mexican-American women. The former would take years of investment. The latter would require mental health professionals to learn something of the language and cultural attitudes toward health and mental health, their appropriate treatment, the appropriate conditions for disclosure of problems, and how the cultural orientations affect more modifiable risk factors such as coping strategies, self competence, etc., to be discussed below. Changing mental heath care delivery structures to reach the target population would also require the development of new, more effective outreach strategies for making services immediately available in "barrios" which are not currently reached.

3. **The Interaction of Life Events and Socioeconomic Status.** The logic of the assessment paradigm is that more informed interventions can be formulated given research findings on the relative importance of various nondemographic risk factors and how they interact with each other and with demographic characteristics (see parts III-VII of the paradigm in figure 5-1). We have focused on one particular risk factor (stressful life events) and have summarized some data concerning how such events interact with sociodemographic status to affect mental health. We found in the El Paso/Ciudad Juarez study, for

example, that increased numbers of life events happening to the respondents were associated with mental health problems across all four ethnic/geographical groups surveyed. However, the number of stressful life events happening to others important to the respondents was even more strongly associated with mental health problems among Mexican respondents. Although this pattern did not hold for the Mexicans in El Paso and the Mexican-American groups, the latter reported by far the most events happening to their significant others. Thus we would expect that, among the middle-aged, lower status, recently immigrant women we have been using as our example of a high-risk group, those experiencing higher numbers of life changes either themselves or among persons close to them but not in their immediate family would be at particularly high risk.

Our survey also showed that Mexican respondents were more likely to rate events having to do with social mobility as more stressful while Anglos rated those having to do with changes in the structure of their interpersonal relationships--particularly the nuclear family--as most stressful. One might, then, want to concentrate interventions designed for Mexican populations more on helping individuals experiencing changes involving social mobility. Certainly the middle-aged, lower-class, Mexican women who are also recent immigrants have experienced a major life change related to social mobility. They may well have a range of other events occurring in their lives--their first entry into the job market, children leaving home, broken marriages, etc. Intervention programs could focus, then, on helping Mexican-Americans who have experienced accumulations of social mobility kinds of changes to learn to deal with such change.

4. **Mediators of the Life Event-Mental Illness Relationship.** Our intervention assessment paradigm (parts IV-VII of figure 5-1) also suggests that the more we know about the mediators of the life change-illness process and about the interactions of the mediators with one another as well as with life events and socioeconomic characteristics, the more accurately we will be able to target interventions and the more effectively we will be able to design intervention strategies.

Our paradigm includes a list of mediating variables which may be particularly relevant to the Mexican female population we have been using as an example of a high-risk target group. However, very little research has been done on how most of these mediators operate in Mexican or Mexican-American populations. We can hypothesize, however, that women in our target population would be at higher risk the more life strains they face, the lower their perception of the availability of adaptive resources, the lower the objective availability of adaptive resources, the lower their social competence, the lower their sense of self-efficacy, the fewer their coping skills, the worse their self-perception, and the lower their acculturation to both American and Mexican settings. These mediators probably interact in a mutually reinforcing manner so that an individual at high risk in one area is unlikely to maintain a low-risk profile overall.

The mediators probably can either buffer or exacerbate the effects of stressful life change on mental health status. Persons at high risk on the mediator variables may be able to tolerate relatively little life change whereas those at low risk may be able to cope successfully with high levels of change. Certainly, being at high risk on the mediator variables relates strongly to socioeconomic status.

Although the available research does not confirm or deny many of these assertions, at least among Hispanic populations, such research is feasible. An example is the currently ongoing Hispanic Network Preventive Intervention Study described fully by Vega et al. (in press). Essentially the study is a community-based randomized trial designed to prevent onset of depression among middle-aged, recently immigrant, lower socioeconomic status Mexican-American women. This very specific target population is being located by screening randomly chosen households for demographically eligible respondents and by a second screen of those with a previous history of depression or other serious mental health problems.

The study is of particular interest here because (1) it is based on a theoretical model which recognizes the potential interactions between stressful life events, other kinds of stressors, coping behaviors, feelings of self-competence, and depressive outcomes, and (2) it tailors an intervention strategy to deal with all these in a very specific sociocultural setting. The intervention focuses on helping the women cope effectively with stressful life events and persistent life strain, concentrating particularly on health problems and problems associated with the acculturation process. The intervention does not try to alter the levels of stress the women face so much as to modify their coping behaviors.

Servidoras, women who emerge naturally in the Hispanic community as leaders in terms of helping their peers deal effectively with a wide range of life problems, will be used to help the subjects develop both instrumental and affective coping behaviors as well as to build supportive social networks for themselves. The intervention will ideally lead to increased levels of social competence and feelings of self-efficacy which will, in turn, prevent the onset (or at least an increase) of depressive symptomatology.

We can assess the potential implications of such a study for preventive interventions in other settings in terms of our paradigm. The selection of a very specific target group for the study allows intervention that is carefully designed to be relevant to the target group's specific needs and cultural orientations. The health care provider in this case is not a mental health center or other typical organizational structure, but a network of informal natural community leaders who will meet with the high-risk women both individually and in groups in homes in the community at convenient times. Since the servidoras are themselves from the community and have faced many of the same problems the subjects are facing, they will be keenly empathetic and sensitive to the cultural environment of the targeted women. The servidoras will serve as role models for the subjects as well as providing counseling and instructive guidance on coping effectively with life problems.

If the intervention is effective, it could provide a model for the kind of flexibility that might be required of health service systems if they are to effectively deliver preventive mental health care. The intervention could also provide a model of how providers might think about what changes they want to effect in their clients. The most important implication of the stressful life change research literature may not be that it is important to get people to monitor and control the amount of stress to which they subject themselves. Rather it may suggest that the many more modifiable risk factors with which stress interacts (having to do with coping styles and self-perceptions) may be more appropriate points of intervention to prevent the onset of mental health problems.

The Hispanic Network Preventive Intervention Study provides a good example of how the implications of previous research can be applied to the development of a preventive intervention program. We hope this and similar projects will provide us with a much firmer sense of how life stressors, mediating variables, and socioeconomic characteristics interact to affect mental health status. Such a perspective should allow the design of even more precisely targeted preventive interventions and treatment programs in the future, as well as clarify the value of stress modeling for measuring corresponding effects.

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CHAPTER 6

HISPANIC SOCIAL NETWORKS, SOCIAL SUPPORT, AND MENTAL HEALTH

Ramón Valle and Gloria Bensussen

This chapter examines social network interaction as it applies to Hispanics and explores the dynamics of social support witin the context of psychological well-being. Social networks are receiving considerable attention within the field of mental health because of the wide range of interventive and supportive functions attributed to them. Researchers have credited social networks with (1) buffering the effects of stress (Myers et al. 1975; Cobb 1976; Miller and Ingham 1976; Dean and Lin 1977; Henderson 1977; Horowitz 1977; Hirsh 1980); (2) decreasing the symptoms of mental dysfunction (Caplan 1975; Gottlieb 1981; Dean et al. 1981; Eckenrode and Gore 1981; Dean and Ensel 1982; Escobar and Randolph 1982; Griffin 1984; Vega and Kolody forthcoming); (3) assisting in maintaining health (Cassel 1976; Kaplan et al. 1977; Pilisuk and Froland 1978; Gore 1978; Berkman and Syme 1979; Lin et al. 1979; House et al. 1982; Gottlieb 1983b; Reed et al. 1983).

Despite this generally "good press," the social network literature does not agree on what features of social networks make them supportive. For example, throughout the past decade a number of investigators have documented the supportive aspects of social networks among various cohorts of Hispanics including youth (Barrera 1981), families (Sotomayor 1971; Keefe et al. 1979; Sena-Rivera 1979; Mindel 1980; Vega et al. 1982), and the elderly (Sotomayor 1973; Valle and Mendoza 1978; Delgado 1982). At the same time, other investigators have reported the absence of social networks and social support among a number of Hispanic subgroups (I. Cuellar 1981; Weeks and J. Cuellar 1982). Weeks and Cuellar, for example, found that approximately 25 percent of the Hispanic elderly they studied either had no "significant other" to turn to or chose to turn to no one to meet their basic needs. Other investigators, focusing on the possible mediating role of social support, have questioned the supposed universality of social support among all Hispanic cohorts. They note differences, for example, in available social support between English- and Spanish-speaking Mexican-American subgroups, with the Spanish-speaking group consistently demonstrating lower levels of social support from natural social networks (Griffin 1984; Vega and Kolody, forthcoming; Weeks and Cuellar 1982).

Belle (1982), discussing the role of social networks in maintaing mental health, stresses the importance of assessing the cost-benefit ratios of social support emanating from a social network. As she indicates, interaction that is apparently supportive may be seen quite differently when the demands for reciprocal exchanges by the "supportive" members of the networks are taken into account. Other investigators in the field support this conclusion (Rambaut, forthcoming).

Goodman (1980) agrees that social network interaction may be less supportive when reciprocity is demanded. But she outlines an even more demanding social network scenario involving individuals whom she describes as "high takers" (i.e., persons who benefit from unequal exchanges within the network exchange relationship). Thus reciprocity and exchange behaviors within social network interaction as well as the dynamic of asymmetry require careful examination (Wellman 1981).

Sorting out the supportive functions of social network relationships becomes even more complex when one considers the impact of major stressors arising from traumatic life events as well as persistent strain on affected individuals and their web of significant others. Here a wide range of questions related to the basic structure of social networks and the accurate measurement of their dynamic processes within different domains of everyday life as well as their mental health outcomes all come into play.

The list of issues and questions can easily be extended. For example, Pearlin (forthcoming) raises the question of whether network social support or its absence is disorder-specific or nonspecific. Aneshensel and Stone (1982), Howe and Vega and Kolody (forthcoming) suggest that social support may have a direct rather than an indirect, or buffering, effect on the outcomes of such mental health conditions as depression. Still, as noted earlier, other researchers such as Belle 1982 have suggested that under certain conditions social networks might actually add to the burdens of persons undergoing psychological stress.

Clearly researchers in the field no longer believe that the mere presence of interactive networks signifies social support (Biegel and Naparstek 1982; Warheit et al. 1982; Gottlieb 1983a; Lin and Dean 1984). Thus we need additional specificity within the social network paradigm, particularly as regards Hispanics. This chapter addresses these issues.

A Developmental Social Network Paradigm

The social network paradigm we propose encompasses four core components whose interplay affects socially supportive outcomes. These components include: (1) network mode, (2) network density, (3) network dimensionality (i.e., role diversity) of network participants, and (4) valence (the positive-negative directionality) of the interaction. These components are extensively discussed throughout the literature. Lin and Dean (1984), for example, examine these concepts, but use somewhat different terms than we do. Thus our network mode corresponds to their "context of social support," our network density to their "relationship between the ego (the network focal person) and the source of support," our network dimensionality to their "channels" for social network interaction (including various network actors and their roles), and our concept of valence to their discussion of the "content of the information of social support."

Pearlin and Schooler (1978) strongly suggest yet another dimension--namely, that social network interaction not only takes place witin specific domains (marital, familial, occupational, etc.), but that the quality of social support may vary between these domains. We propose that the four components of our social network paradigm operating in different combinations within specific domains either generate social support or account for its absence from network interaction. Note that social network behaviors, as discussed in this paper, are framed within the context of Cooley's (1909) definition of primary group behaviors encompassing the various aspects of psychosocial interaction with one's significant others (Farris 1932; Bates and Babchuk 1961; Litwak and Szelenyi 1969).

Network Mode

As various researchers have described elsewhere in the literature, Hispanic social networks can be categorized as aggregate, kinship, and linkperson in format (Valle and Martinez 1981). Natural social networks can exist separately or in combinations of any or all of these modes.

Aggregate networks. These consist of large or small, formal or informal, groups that form naturally in the community. The common characteristic of all aggregate networks is that they involve relationships between nonkinship group members with implicit rights and obligations accruing to the participants. Many formally chartered organizations fitting this categorization have continuously sprung up within the Hispanic community around political, educational, and philanthropic goals, particularly during the post-World War II and the civil rights era. Informal groups include the many peer- and self-help groups that are traditional to the Hispanic community (see Killilea 1976; Spiegel 1982). Velez (1980) has traced their cultural roots and operational dynamics among Mexican-heritage Hispanics to earlier mutualistic natural helping formats. Other informal groups include more locally focused oranizations such as "crime-watch" groups found in urban neighborhoods and telephone reassurance cliques among the elderly, the handicapped, and the homebound. Even spontaneous neighborly assistance typically seen in communities that have been struck by natural disasters fits into the category of aggregate networks.

The recent work of Rivera (1984) points to the mental health potential of Mexican-heritage Hispanic associations that provide various forms of support for their members. Unfortunately, though, except for those peer- and self-help processes specific to gang work or substance abuse groups, the mental health role of aggregate natural networks among Hispanics remains little explored in the literature.

Kinship networks. The key distinguishing features of kinship social networks are (1) their more or less closed entry to participatory membership except through birth, adoption, or marriage, and (2) the presence of ascribed roles based on birth status. Family systems, whether extended, nuclear, or modified-extended in type, are the most common form of natural social networks. The functions of Hispanic kinship systems have been variously detailed in the literature (Barrera 1981; Keefe et al. 1979; Sena-Rivera 1979; Mindel 1980; Vega et al. 1982; Sotomayor 1973; Weeks and Cuellar 1982; Montiel 1975; Miranda 1980; Ramirez and Arce 1981; Delgado and Humm-Delgado 1982). Montiel (1975) and Miranda (1980) warn against stereotyping the social support aspects of the Hispanic family without accounting for a wide range of factors which could impede this support. The issue of how to properly assess the supportive benefits as well as the demands or psychological costs accruing to family interaction and, in particular, the role of the Hispanic family in mediating stressors remains unresolved in the literature, although the discussion favors a more positive role function (Escobar and Randolph 1982; Keefe et al. 1979; Ramirez and Arce 1981; Delgado and Humm-Delgado 1982).

Linkpersons. The third type of social network we find among Hispanics are those composed of linkpersons. Unlike both the aggregate and kinship networks, the ties between individuals are based on dyadic and multiple dyadic relationships. For Hispanics these linkperson networks have residual supportive dynamics derived from antecedent indigenous institutions. The first of these is compadrazgo, a system of ritual coparenthood in which individuals are linked by formal ties that entail certain rights and obligations such as caring for the others i.e., compadre. Compadrazgo, a social institution with long-standing roots in the European/Roman Empire sphere of influence, was introduced to the New World by both the Spaniards and the Portuguese (Press 1963; Lopez 1969; Osborn 1970; Von Hagen 1958).

Another precursor of the modern linkperson networks was the Aztec Calpulli (clan caretaking) system, which at the time of the Spanish Conquest in 1519 was responsible for providing for the public welfare (including the distribution of food) in times of need (Von Hagen 1958; Wolf 1959; Soustelle 1961; Carranca y Trujillo 1966; Nutini et al. 1976). Both of these precursors emphasized the helping-supportive role of a central social network actor linked in a helping mode with a person in need. The system of consejeras as identified by Kent (1971) and the servidor system as outlined by Valle and Mendoza (1978) and Mendoza (1980, 1981) reflect contemporary versions of this network modality.

In the Hispanic context, linkperson networks may include friends and neighbors as well as individuals with formally designated health and counseling roles in the community--such as curanderos (healers), yerberos (herbalists), sobadores (masseuses), and espiritualistas (spiritual counselors) (Delgado 1977; Vega 1980). However, the presence of these latter network actors is mediated by a number of acculturation as well as domain factors. For instance curanderos, historically related more to physical health, may be less evident in the mental health arena (Delgado 1977).

The literature on social networks also discusses other potential linkperson network actors who may fit into the overall configuration of Hispanic social networks. Killilea (1976) and Spiegel (1982) point out that school teachers and school counselors, neighborhood merchants, the local police (particularly those who patrol a regular beat), and even mail carriers often play active roles in natural social networks. Regardless of their formal roles and the fact that they are "outsiders," such people often establish primary group-type, day-to-day relationships with local (Hispanic and other) residents and are "invited" to participate in the community's natural social networks. Thus social network ties often surpass the boundaries of specific geographic designations and time frames, a factor that is crucial to understanding the role of social networks as possible stress-coping mediators in mental health.

All three types of networks have one common helping or "socially supportive" characteristic which stands out--namely, the brokering function of the principal natural helpers within the network. This appears to hold constant even within kinship networks. This dynamic role function can be seen where one individual acquires a reputation como una persona muy servicial (as one who is very open to serving others). In the context of stress modeling, this brokering function within the natural network may emerge as the key mediating role with regard to stress and psychological dysfunction.

Network Density

A second major component of our social network paradigm is network density, which encompasses both network size and the frequency of interaction between network members. Karno and Escobar (n.d.), in a discussion of psychopathology among Hispanics, report that Hispanic social networks seem to keep mentally ill individuals with higher levels of symptomatology within the network for longer periods that their Euro-Anglo counterparts. The issue of network density, though, is not clear-cut. Hirsch (1980) and several other researchers question the supportive viability of very dense social networks. Granovetter (1973) makes a cogent argument for the strength of weak ties.

The "absorbancy" and density of the Hispanic social network might, from a mental health perspective, appear beneficial, but Karno and Escobar (n.d.) suggest the opposite. For example, this absorbancy might delay the use of formal services. Moreover, as others have also suggested, this may be a factor in the lower usage of mental health services observed among Hispanics, despite the mounting evidence of higher need for such services (Griffin 1984). Researchers have observed a similar phenomenon among other groups such as the elderly (Ward et al. 1984), giving some credence to the assertion that overly dense networks may have detrimental side effects. Moreover, this factor may also account for the clinical observation that Hispanic patients, upon their arrival in the formal mental health service system, often present a more deteriorated condition than do Anglo-American patients. Thus the potential draining impact of such "high-risk" natural helping on those persons closest to the problem-laden person needs to be more closely examined (Griffin 1984; Granovetter 1973).

Nevertheless, a number of researchers present an opposite perspective with regard to dense Hispanic networks. Barrera (1981), in his work with adolescents, sees relatively dense networks as supportive, indicating that they buffer stress. Both Griffin (1984) and Vega and Kolody (forthcoming) found that the U.S.-born Mexican-Americans they surveyed had higher density networks and lower symptomatology than the Mexican immigrants to the United States included in their surveys.

We conclude that social network density cannot be viewed apart from other social network factors including the qualitative features of discrete network dynamics and their idiosyncratic relationship. High social network density can in fact lead to the absence of social support, either by holding back the needy person from getting help or by overwhelming the network members themselves in terms of the level of interactive responsibilities accruing from the high density ties. An earlier observer of social group phenomena, Fritz Redl (1952) presents an even worse alternative. He suggests that the natural helpers within dense networks may themselves become quite adversely affected by the group process to the point of becoming "contaged" by the psychological dysfunction present among the affected members. This can be seen most graphically among such peer networks as street gangs or in kinship networks where physical or sexual abuse is present. Here the network members, all for quite different reasons, may feel trapped by the solidarity of the social group. In any event Granovetter's (1973) intriguing suggestion about the strength of weak ties bears further scrutiny with regard to the impact of social network density on the quality of the support relationship.

Dimensionality (Role Diversity)

A third major component of the social network construct--besides network mode and density—encompasses the potential multiple roles that the members of a social network have toward each other. Social network roles can encompass a single content area (for example, a network member who acts only in the role of a relative or the person who provides only one kind of network assistance). Tolsdorf (1976) defines such single-role functions as a uniplex social network relationship. However, in practice most support persons play multiple or multiplex roles (again Tolsdorf) vis-a-vis the focal person.

We believe Hispanic social networks are best understood as multidimensional in nature, although this poses methodological problems for both researchers and clinicians. If it is true that the person under stress will be found within multiplex networks, the researcher and the clinician making social network analyses are certain to have a relatively complex multivariate assessment undertaking on their hands.

Another aspect of social network dimensionality involves the social distance (or closeness) experienced by members of a social network. Here various culturally relevant concepts discussed in the literature on Hispanics come into play. These include the notion of confianza (mutual trust shared by the network participants), as well as to what extent reciprocity is expected or demanded within specific networks.

The residual values of the compadrazgo and calpulli natural caretaking systems discussed previously come into play here. Although the formal aspects of compadrazgo are waning and the calpulli network relates more to the ancient than to the modern Mexican cultural ambience, these social coping systems have left an imprint. For example, residual expectations can be observed among Hispanics with respect to the reciprocity and exchange behaviors designating mutual acceptance into the "true" webwork of the social network relationship (Valle, forthcoming).

In stress modeling, the distance/reciprocity issue is important because this factor may influence whether or not a potential support person is invited into an intimate supportive relationship, as well as whether or not persons in need feel they are among intimates or among strangers, even where members of the support network are of similar ethnicity (Valle, forthcoming). Our social network paradigm also encompasses the process of platica--a rapport-building dynamic that may be particularly crucial to developing Hispanic social network intimacy and cohesion (Valle and Mendoza 1978; Weeks and Cuellar 1982; Becerra and Shaw 1984). Similarly the concept of personalismo (the personal expectations of the Hispanic mental health client (LaVine and Padilla 1980) may play a key role in reducing the social distance experienced by the needy person within the social network, since alienation or separation from network support can itself serve as a mental health stressor (Becerra and Shaw 1984).

In discussing the distance/reciprocity concept, we must also be aware of the rights and obligations incurred among the linked members which extend over time and place and which, with the sanction of one or more of the original network members, may at times be conferred to newcomers appropriately brokered into the social network. This idea is particularly relevant to the concept of the servidores discussed below. Therefore, we should keep in mind that reciprocity, in terms of perceived as well as actual supportive exchanges, plays a significant part in stress-coping behaviors of Hispanics, as does the multidimensionality of roles played by support persons.

Valence

The fourth component of our social network paradigm is the concept of valence--i.e., that social network relationships operate not only within a dual axis of "expressive" and "instrumental" ties, but also that these ties can have positive or negative outcomes vis-a-vis social support. In social network terms, expressive interactions can be seen proceeding along a lateral plane with peers and associates mutually linked to one another. Instrumental ties in turn move along the perpendicular axis of social mobility, resource linkage, information exchange, and problemsolving and network appraisal functions. This framework has been presented theoretically, either in whole or in part, by Wellman (1981), Heller and Swindle (1983), House (1984), and others, and is being researched empirically by Vega and Valle (1984-87) and Dean and Lin (1985-89).

For Hispanics the dual axis concept emerges directly from an examination of the antecedent institution of compadrazgo. Throughout its long history among Hispanic populations compadrazgo provided for both laterial expressive ties and vertical social mobility. In its earlier form, the needy person would, through an extensive ritual process, form a dyadic/mutual relationship--or be invited into this type of relationship as a compadre/comadre (a ritual coparent) by another social network participant (Mintz and Wolf 1950; Press 1963). Such compadres were linked to each other not only by friendship but were also expected to provide instrumental support in difficult life situations.

The cultural or community broker discussed throughout the Latin American literature (Osborn 1970; Von Hagen 1958; Lomnitz 1971, 1977) and the servidor concept related more specifically to Mexican-Americans (Valle and Mendoza 1978; Valle and Martinez 1981; Mendoza 1980, 1981) capture the duality of a supportive person who is able to establish warm expressive ties while providing instrumental assistance. In our discussion of these ideas, we will use Tolsdorf's (1976) designation of multiplex social network relationships with the expressive plane termed here the reciplex side of the network interaction and the instrumental plane designated as the vertiplex relationship. As outlined here, reciplex, or expressive behaviors represent the underlying reason for the social network's existence. The vertiplex or instrumental behaviors in turn render social support effective. Figure 6-1 portrays the dual axis components of social network ties and identifies the mediating functions as well as the multiplex hybrid of the two axes.

Stated as a hypothesis, we can say that Hispanics expect both facets of social network interaction to be present before social support becomes a reality for them. The instrumental interactions provide access to resource systems of various kinds including problemsolving assistance. The expressive ties function

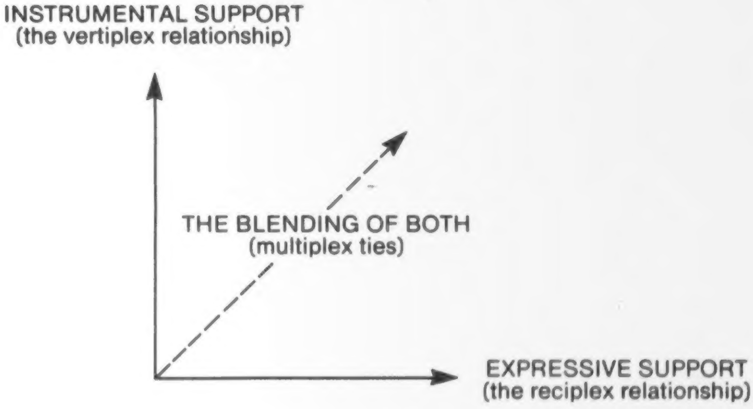


FIGURE 6-1.
The Dual Axis of Social Support

as the cultural connection. They provide for the appropriate bonding behaviors and reciprocal exchanges which mitigate the possible feelings of vergüenza (shame) and obligación (feelings of indebtedness or dependency) arising from the assistance given. Table 6-1 summarizes the key behavioral correlates of expressive and instrumental interactions for possible use as markers of social network exchanges.

Domains

A final dimension of the social network paradigm we propose involves the specific domains in which social network interaction takes form. Stresses and life strains are experienced differently and different social competencies are called into play within distinct domains. As proposed by Gore (1978), Eckenrode and Gore (1981), and by Lin and Dean (1984), as well as earlier by Pearlin and Schooler (1978), and others, differences in social support may exist within specific domains. These domains include marital, familial, and parenting relationships as well as occupational circumstances and financial status. Immigration status would also qualify as a distinct domain calling for a wide range of supportive interactions and social competencies for many Hispanics. The health and mental health functioning are other domains requiring social support competencies.

The concept of domains also incudes possible variances in social support at different points in the life course. For example, the elderly often experience changing social supports as their

Table 6-1. Indicators of expressive and instrumental support

Expressive support	Instrumental support
Affection concern (may be expressed in person, by telephone, or by correspondence)	Material assistance (some must be provided in person, others can be provided by phone or by correspondence)
—Listens to focal person (FP) in need —Makes FP feel cared for --Indicates likes FP's ideas --Indicates likes FP's actions --Extends self/engages FP --Extends intimacy to FP --Affirms FP --Offers/extends trust to FP —Shows understanding to FP	—Provides food —Provides money —Provides clothing —Provides housing —Provides transportation —Provides a job/paid work
	Assistance with daily activities (must be offered in face-to-face context)
Socializing/joint activities (must be expressed in face-to-face contact)	
--Visits FP --Eats meals with FP --Accompanies/provides companionship to FP *At restaurants *At social events *At church/religious events --Has fun with/relaxes with FP --Goes on trips/vacations with FP	—-Fixes car/repairs household items —Goes shopping for FP —Does household chores for FP —Takes care of FP's children, other household members
	Problemsolving assistance (may be provided face-to-face or by phone or correspondence)
Provides for sexual intimacy Provides FP unconditional access to self	—Keeps FP from worrying —Discusses problems/ proposes solutions —Provides suggestions/ direction --Provides appraisals of threats and coping options

Table 6-1 continued

Instrumental support

—Maintains readiness to act on behalf of FP
—Provides emotional support
—Gives unconditional regard
—Provides problemsolving role modeling

Linking activity (may be provided in person, or by phone or correspondence)

—Translates for FP
—Provides job contacts
—Links FP to services/ resources
—Links FP to aggregate networks
—Links FP to own family; to old/new friends
—Can serve as arbiter in network disputes

networks thin (Schmidt 1981) because of increasing incapacitation and institutionalization. Social support is rarely uniform throughout a lifetime and its attendant stressors and life strains.

We might also extend our discussion of "domain-specific" social support to encompass several more elusive concepts. For example, we may assume that temporal sequencing of the demand on, and the availability of social support can all influence the quality and flow of social support. Relational proximity to the needy person (as opposed to physical proximity) also affects the quality and flow of support. In modern social environments, including Hispanic barrios, immediate neighbors may not be social network intimates. The telephone and the automobile allow socially supportive significant others to be readily accessible, although they may live some distance away. Thus we should avoid stereotyping Hispanic social support as being bound to barrio-based social networks.

At the same time we can point out some obvious exceptions to this idea of relational proximity. For example, spousal social support is traditionally seen as requiring physical proximity to be effective. Physical proximity may also be required in situations in which the needy person requires caretaking due to physical or mental illness.

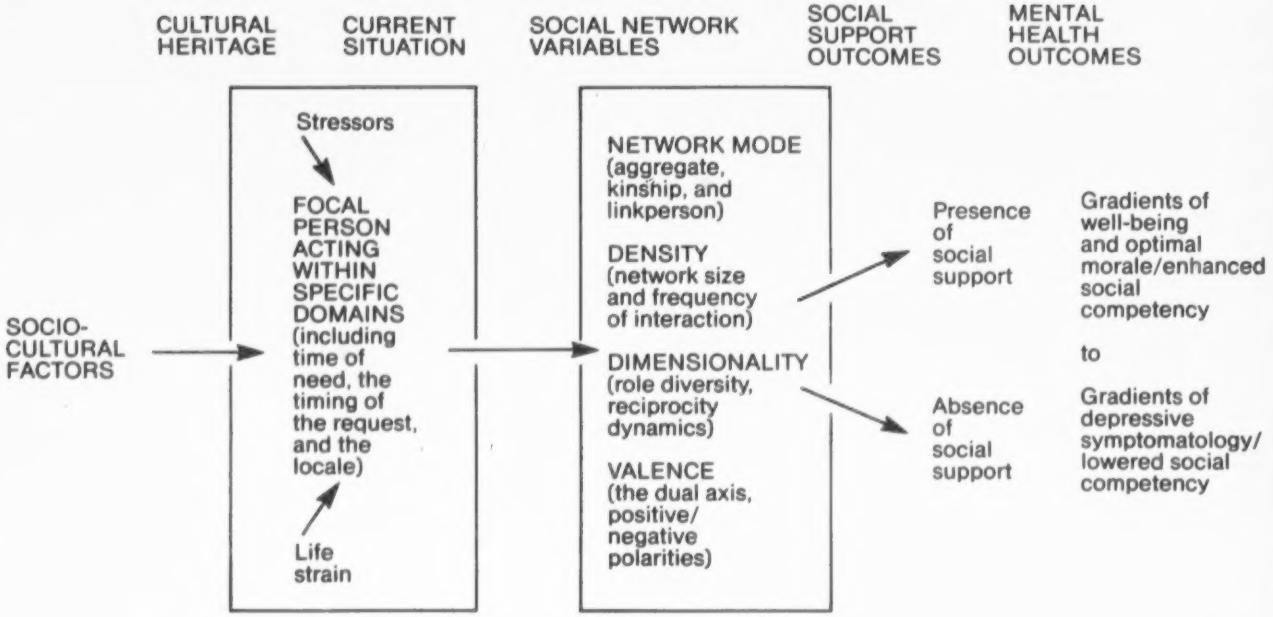
We can illustrate these considerations related to domain-specific social support with an example from the immigrant experience. Immigrants may find themselves in a crisis situation and in need of support while living far from their original home. Frequently immigrants have had insufficient time to develop supportive ties where they currently reside. If they have developed new socially supportive ties, their request for assistance may not be met because the potential supportive significant others are themselves currently overwhelmed with their own needs and problems. These conditions pertaining to the current "domains" within which an individual is functioning can assist in understanding the circumstances described by Aneshensel and Stone (1982) whereby the absence of social support itself becomes a source of stress and quite possibly of life strain.

Discussion

Figure 6-2 summarizes the elements of the suggested social network/social support paradigm vis-a-vis Hispanics. We wish the paradigm were simpler and the interaction of the variables more directly evident. Unfortunately, the research to date has not fully clarified all possible relationships. This is particularly true with respect to the social networks of Hispanics, where research has highlighted the questions needing resolution more than it has provided the answers. At the same time, the framework we propose is based on the extensive social network research already conducted or currently underway. Thus, the model we propose in Figure 6-2 can serve as an interim guide to understanding the supportive features of Hispanic social networks, especially those characteristic of Mexican-heritage Hispanics.

At the outset, we see that valence, the expressive/instrumental dual axis, is pivotal in determining the presence or absence of social support. For Hispanics, much of what is termed social support turns first on the interplay of the expressive and instrumental behaviors between the social network participants. Moreover, this mix of dual axial behaviors operating within specific domains determines whether needy persons perceive themselves as supported or not supported with regard to stressors and ongoing strain and network demand.

FIGURE 6-2.
Hispanic Social Network/Social Support Paradigm


CULTURAL HERITAGE
CURRENT SITUATION
SOCIAL NETWORK VARIABLES
SOCIAL SUPPORT OUTCOMES
MENTAL HEALTH OUTCOMES
SOCIO-CULTURAL FACTORS
Stressors
FOCAL PERSON ACTING WITHIN SPECIFIC DOMAINS (including time of need, the timing of the request, and the locale)
Life strain
NETWORK MODE (aggregate, kinship, and linkperson)
DENSITY (network size and frequency of interaction)
DIMENSIONALITY (role diversity, reciprocity dynamics)
VALENCE (the dual axis, positive/negative polarities)
Presence of social support
Absence of social support
Gradients of well-being and optimal morale/enhanced social competency
to
Gradients of depressive symptomatology/lowered social competency

Thus a person who is experiencing specific needs or undergoing strain arising from difficult circumstances may receive expressive support from family members and friends. At the same time, despite the expressions of cariño (affection) and concern, the social network may lack sufficient instrumental assistance to change the stressful situation. As indicated earlier, many Hispanics find themselves in such circumstances. They may be relatively rich in expressive support but still be deficient in the material/brokering/problemsolving/appraisal assistance that would enable them to transcend environmental barriers. They may also lack the necessary psychological assistance in the form of instrumental emotional support, or even basic survival-oriented information, provided by a social network that would enable them to overcome the effects of traumatic events and ongoing strains. These facts help to explain the Hispanic "at risk subgroups" found by various researchers (Roberts 1980; Cuellar 1981; Griffin 1984; Vega and Kolody, forthcoming).

From a social network standpoint, therefore, the psychiatric risk profiles of certain cohorts of Hispanics may have an inverse relationship with the level of instrumental social support. The higher the risk of psychopathology found within the cohort, the lower the levels of attendant instrumental support that is available. Conversely, we posit that where we find higher levels of instrumental support--given that there is also culturally syntonic expressive interaction (Lauria 1964; LaVine and Padilla 1980)--we find a lower risk profile with regard to specific mental health outcomes such as depressive symptomatology and anxiety.

At this point, two critical complications enter the picture. The first of these is the pivotal role played by the focal person's perceptions of received support. As Turner (1984) indicates, perceived support may be the single most significant indicator of social support emerging out of social network relationships. The second complicating factor is the cultural overlay determining the constituent elements of "perceived support" among Hispanics—in essence, the central theme of this chapter.

A Further Clarification

Closer scrutiny of the interplay of expressive and instrumental social network behaviors can provide additional insight into the range of interactive dynamics at work among Hispanics that influences or determines their perceptions of social support within any given situation. As discussed previously, social networks cannot only provide support, but make demands upon the linked members. This meshes with Hispanic (and particularly Mexican-heritage Hispanic) cultural expectations wherein demands for reciprocity between network support persons and persons in need are both expected and "ritually" provided for. From a mental health perspective, though, such demands might exceed the limits of expected reciprocity or the type of demand made may be counterproductive to maintaining one's emotional balance. For example, a demand for reciprocal assistance may come at a point when the previously supported persons are themselves again overwhelmed or it may require them to remain in a destructive relationship or forgo their self-development because of culturally prescribed roles or behavioral expectations.

It is exactly at this point that the costs of the network relationship as discussed by Belle (1982) might exceed the benefits, or considerable imbalance might be encountered within the network relationship leading to what Wellman (1981) identifies as asymmetrical social network ties. In this case, Goodman's (1980) "high takers" might produce dissatisfaction with natural social network processes. In the Hispanic cultural context, we find some behavioral counterbalances to high social network demands. These include the communication of culturally appropriate symbolic behaviors such as respeto, which requires that proper attention be paid to the "ceremonial and moral" prerequisites attendant on mutual respect (Bernard et al. 1979-80) along with exchanges that build confianza (mutual trust) (Rivera 1984).

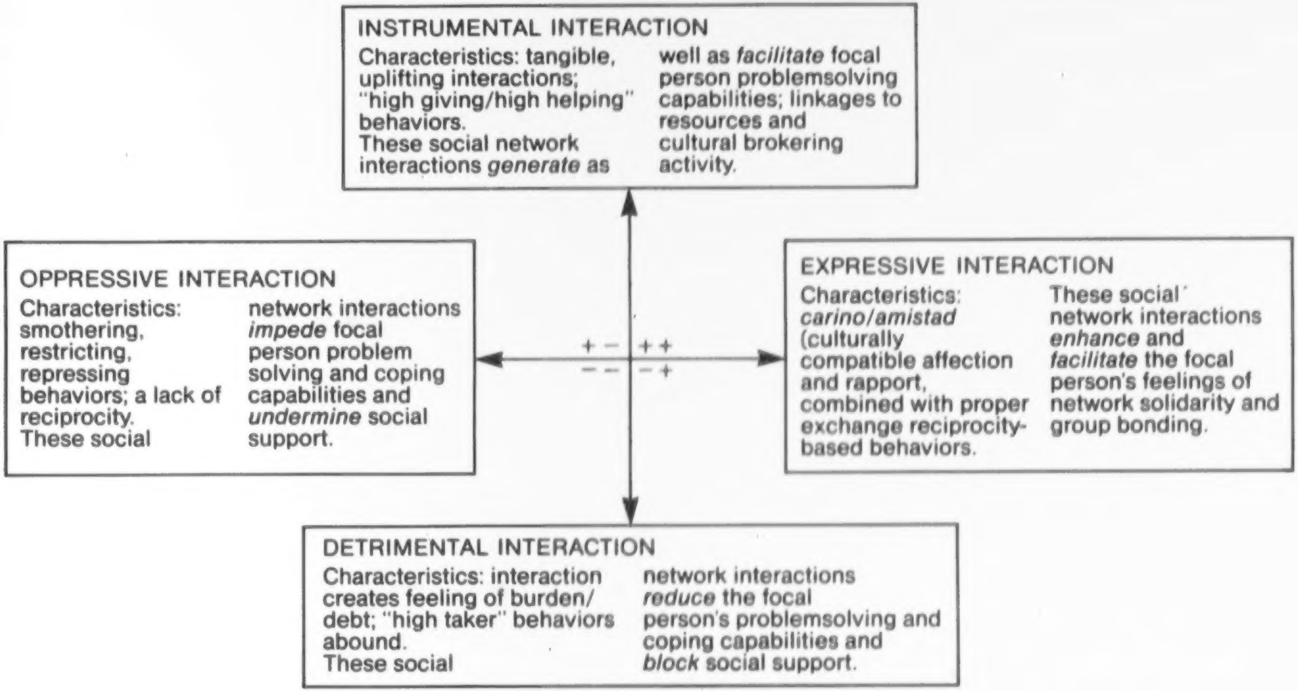
Returning to the issue of the demand features of social network interaction, we can see that imbalances in the expressive/instrumental equation combined with other social network dynamics such as excessive density (see figure 6-2) can work against perceived satisfaction as well as against the actual level of support received. One need only picture a social network filled with "high takers" or a social network containing a great deal of expressive interaction but lacking problemsolving capabilities to see the potential difficulties in mobilizing such networks as stress-coping resources.

Figure 6-3 summarizes more completely the social network dynamics that emerge with regard to the needy person's perceptions of the presence or absence of social support.

Closing Note

From a mental health standpoint, we must account for the negative as well as the positive aspects of social network interaction. As Bell (1982) and Wellman (1981) report, social networks and social support cannot be taken as synonymous constructs. Moreover, as Cohen and Adler (1984) indicate, only under certain conditions and within certain specific "mixes" of variables are

FIGURE 6-3.
The Positive and Negative Elements of Expressive and Instrumental Social Network Interaction



INSTRUMENTAL INTERACTION

Characteristics: tangible, uplifting interactions; "high giving/high helping" behaviors.
These social network interactions *generate* as well as *facilitate* focal person problemsolving capabilities; linkages to resources and cultural brokering activity.

OPPRESSIVE INTERACTION

Characteristics: smothering, restricting, repressing behaviors; a lack of reciprocity.
These social network interactions *impede* focal person problem solving and coping capabilities and *undermine* social support.

EXPRESSIVE INTERACTION

Characteristics: *carino/amistad* (culturally compatible affection and rapport, combined with proper exchange reciprocity-based behaviors.
These social network interactions *enhance* and *facilitate* the focal person's feelings of network solidarity and group bonding.

DETRIMENTAL INTERACTION

Characteristics: interaction creates feeling of burden/debt; "high taker" behaviors abound.
These social network interactions *reduce* the focal person's problemsolving and coping capabilities and *block* social support.

social networks found to be socially supportive. These specific configurations now require empirical verification.

In summarizing our discussion, we conclude that social support, at least for Hispanics, occurs along a much narrower band of social network interaction than previously considered. This is particularly evident when we place the network demand features alongside the supportive elements. Thus we need to be able to more accurately measure social support, an issue which has been the subject of extensive ongoing discussion throughout the field (Bernard et al. 1979-80; Lin et al. 1981; McFarlane et al. 1981; Sarason et al. 1983; Finney et al. 1984; Wethington and Kessler 1984; Ensel, forthcoming). We suggest that some beginning resolution can be achieved through carefully exploring the interaction between the expressive and instrumental social network dynamics for stress modeling potential.

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CHAPTER 7

A CONCEPTUAL MODEL FOR CLINICAL RESEARCH ON STRESS AND MENTAL HEALTH STATUS: FROM THEORY TO ASSESSMENT

Manuel R. Miranda and Felipe Castro

Introduction

Clinical research with Mexican-Americans remains virtually unexplored. The Sub-Task Panel Report on Mental Health of Hispanic Americans (Report to the President's Commission on Mental Health 1978) called for an integrated program of clinical research for the explicit purpose of increasing the quality of care for Hispanics in need of mental health services. A cataloging of clinical research needs encompasses every phase of mental health, including normative life change events, intrafamilial support patterns, individual coping styles, extrafamilial forms and types of emotional disturbance, treatment methodologies, and design and implementation of programs to prevent mental illness. Recent reviews of the clinical literature, as related to intervention studies with Hispanics (e.g., Cortese 1979), indicate that the few existing studies have resulted in extremely tenuous conclusions about how best to provide mental health services in the Hispanic community. In the absence of more explicit attempts to develop clinical research, insight into the maintenance and/or promotion of mental health among Mexican-Americans will continue to remain diffused and ambiguous at best. Clearly, there is a need for an articulated list of clinical research priorities accompanied by the programmatic development of such research; the ultimate goal is to provide a fuller understanding of the processes involved in developing mental health among Mexican-Americans, as well as the steps required to build preventive intervention programs.

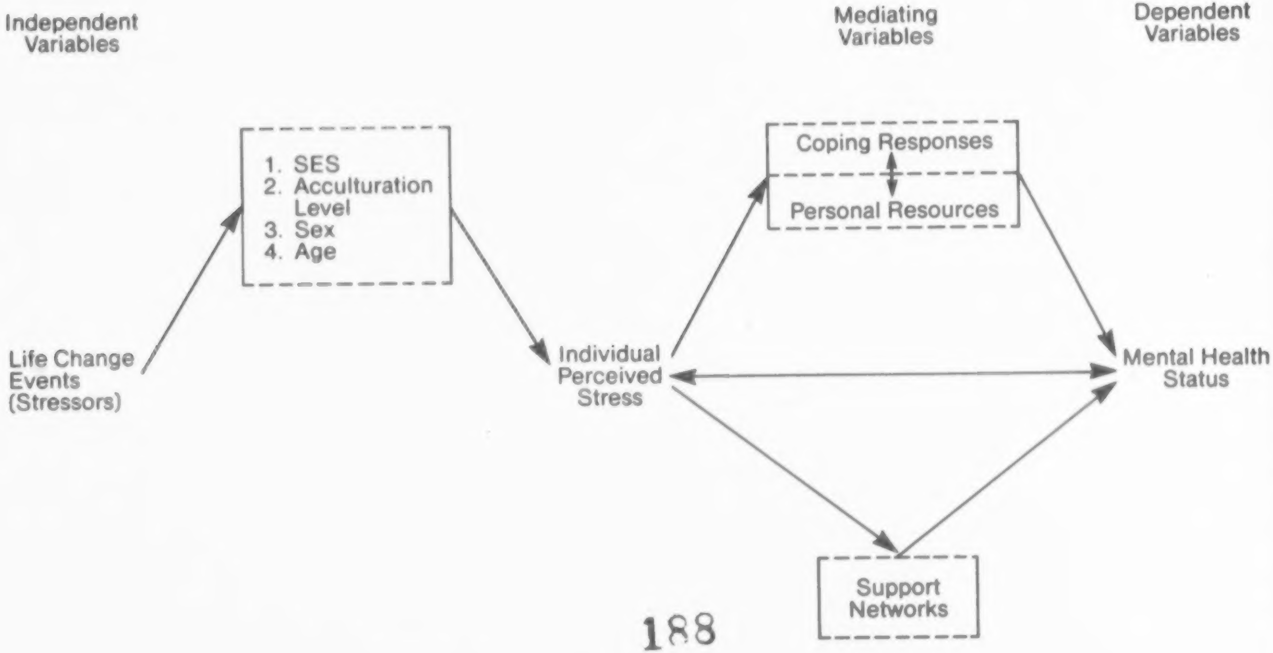
The significance of this chapter centers on its effort to provide a conceptual framework from which a series of significant studies can be systematically developed in response to the current lack of clinical knowledge of Mexican-American health. The rather disorganized state of current information on Mexican mental health issues can be directly attributed to the lack of a conceptual framework capable of heuristically guiding the implementation of clinical studies. The conceptual model that underlies the proposed research plan is based on the "life stress-illness" paradigm (Andrews et al. 1978; Dohrenwend 1975; Lazarus 1978) as mediated by coping responses, personal resources, and social support networks currently popular among mental health re- searchers attempting to gain insight into the etiology of func- tional mental disorder. The strength of the life stress-illness paradigm lies in its ability to organize conceptually the bio- psychosocial field of the functioning individual in terms of its clinical relevance. More specifically, the pursuit of antecedent variables and their interactions as they relate to mental health status (or the lack thereof) is significantly illuminated by the model's relational structure (see figure 7-1).

A Proposed Dynamic Model

In contrast to previous models that attempted to characterize the life stress-illness paradigm in a unidirectional mode, the model illustrated in figure 7-1 emphasizes the necessity of a dynamic, or bidirectional, interactional sequence. The bidirectional cause and effect relationship between the level of individually perceived stress and mental health status as moderated by mediating variables is key in this dynamic interaction. The feedback loop between the independent and dependent variables removes the characterization of mental health status as a static variable and positions it as affecting, as well as being affected by, life events change and the resulting level of perceived stress. In addition, whereas previous life stress-illness models have discussed the need to include such mediating variables as social support and coping responses, few of these have attempted to discuss the specific role these variables play in buffering or directly affecting stress.

As illustrated in figure 7-1, coping responses and personal resources are characterized as functioning independent of social support networks, although all three of these variables have an effect on mental health status as well as indirectly affecting one another. More specifically, coping responses are seen as being precipitated into action by individually perceived stress. Coping responses, in turn, are mediated by one's personal resources (i.e., intrapsychic trait characteristics such as sense of mastery, self-concept, and so forth) prior to exerting their effect on mental health status. The dynamic rather than static quality of mental health status now becomes evident in terms of its direct effect on the level of individually perceived stress. To illustrate the bidirectionality of this interaction further, we can imagine a situation in which an individual is threatened by a high level of

FIGURE 7-1.
Life Stress-Illness Paradigm in
Relation to Mediating Variables


Independent Variables
Mediating Variables
Dependent Variables
1. SES
2. Acculturation Level
3. Sex
4. Age
Coping Responses
Personal Resources
Life Change Events (Stressors)
Individual Perceived Stress
Mental Health Status
Support Networks

perceived threat to his or her credibility as a competent worker. In an effort to cope with this threat, the individual may resort to responses that serve only to increase the personal sense of incompetence. This may result in the serious onset of anxiety, depression, and a decreased sense of well-being and good mental health status. With a deterioration in mental health status, the individual's level of perceived stress may thus increase rather than being reduced by efforts to cope with the initial stressful event.

In addition to depicting coping responses and personal resources as mediating variables, figure 7-1 illustrates the dynamic role of social support networks in mediating individually perceived stress as well as mental health status. With respect to individually perceived stress, social support is seen as serving a buffer role by being able to reduce the individual's sense of threat in relation to life event changes. Available social support networks that are effective and easily mobilized may reduce an individual's sense of stress by being perceived as resources to assist in coping with any necessary changes. The relationship between social support and mental health status may function along similar lines; in addition, deteriorating mental health status may increasingly serve to mobilize, as well as tax, the qualitative and quantitative aspects of the social support network. With an increasingly reduced mental health status, a once effective social support system may itself begin to diminish in its usefulness. This, in turn, may further weaken the buffering action that social support exerts in mediating individually perceived stress. In essence, the dynamics and bidirectionality of the conceptual model, as illustrated in figure 7-1, are played out in these characterizations.

The final component of the conceptual model to be considered is the relationship between life events change and the filtering mechanism of socioeconomic status (SES), acculturative level, and sex. Rather than being a static relationship between the independent variable of life events change and level of individually perceived stress, this relationship is itself characterized as being filtered (or mediated) through a set of structura factors specific to the individual experiencing the life event change. In essence, these structural factors (SES, acculturation level, and sex) serve as a second set of independent variables that must be taken into consideration to comprehend fully the relationship between life events change and mental health status--particularly as affected by sociocultural influences.

In summary, conceptualizing life event change and its effec on individually perceived stress and the mediating variables o individual coping responses, personal resources, and social suppor networks as determinants of mental health status is complex if we seek insight into which variables, and under which conditions, influence an individual's mental health status. The ability to conceptualize how the significant variables interrelate in terms of their effect on psychological well-being allows us to understand how, when, and where we need to intervene in providing preventive or ameliorative care. In addition, while the conceptual model illustrated in figure 7-1 emphasizes the significance of the major interactions involved, other variables also play a role in determining the effects these interactions have on mental health status.

Key among these variables are socioeconomic status (SES), acculturation level, and sex. A useful research model that attempts to explain and predict how individuals become emotionally disturbed, as well as how they defend themselves against such disturbances, must incorporate these additional variables into its overall paradigm.

The Life Events Change-Mediating Variables--Mental Health Status Paradigm in Relation to Psychiatric Disorder. From the perspective of the social scientist, the problems with previous reviews of the literature on life events change as related to psychiatric disorder are as follows:

1. Life events are treated as an undifferentiated and unidimensional construct.

2. Psychiatric disorders are similarly considered as undifferentiated, unidimensional categories.

3. All possible mediating variables that might affect the relationship between life events and mental health problems are usually ignored, particularly in relation to social support networks and individual coping responses.

The literature is now sufficiently advanced to suggest that much more precision can be reached on the linkages between life events and disorders. Ideally, the literature may eventually be able to tell us with some precision what kinds of events, under what kinds of conditions, are linked with what sorts of disorders, for what kinds of people. In essence, this linkage defines the utility of the model illustrated in figure 7-1.

Much of the research on the life events change-mental health status paradigm done in the last two decades has stemmed from the adaptation by Rahe and Arthur (1978) of work initiated by Hinkle and Wolff (1957). Their model suggests that life changes disrupt established, normal behavioral patterns and are therefore stressful. In reaction to the stress, the individual is presumed to activate psychological and other coping efforts. Illness ensues when coping abilities are incapable of dealing with the amount of change required. The early breakthrough of Rahe and his associates, which captured much attention and provoked much research, was their measurement of the relative amount of change required by specific events (e.g., marriage, death, divorce) in terms of the number of life change units as assessed by a group of independent judges.

It should be noted that Rahe's conceptualization of life events is unidimensional. That is, the events are considered as varying only along the dimension of how much change they require. Many reports (Coates et al. 1972; Dohrenwend 1973; Myers et al. 1971; Smith 1971) have found that such measures of life change are associated with scores on psychiatric screening scales that are themselves nonspecific and that are usually treated as unidimensional. These scales consist of lists of symptoms that are generally scored simply by totaling the number experienced in a given period of time. High scores furnish no evidence of the likelihood of the presence, or absence, of any specific disorder. The scales have typically been validated through their ability to predict hospitalization.

The use of such studies relating undifferentiated life change to an undifferentiated propensity to psychological disorder forms an overly simplistic model. That is, virtually the only intervention that can be suggested from this relationship is to limit the number of life events to promote one's health.

More recently, research has begun to focus on the relationship of more specific types of life events to more specific types of disorders. For example, it has generally been found that life events generally judged to be negative (e.g., death of spouse, loss of income) are more strongly related to disorder than those generally judged to be positive (e.g., marriage, promotions). Similarly, events generally acknowledged to be beyond one's control (e.g., natural disasters, death of family members) are more strongly linked to disorder than those within one's control (e.g., vacation, leisure endeavor) (Briscoe and Smith 1974; Dohrenwend 1974; Fairbanks and Hough 1979).

In addition to differentiating types of events, recent research has also tended to examine the relationship of events to specific types of disorder. Although the literature, and often the measures, must still be regarded as tentative, it appears that life events—particularly negative ones that are beyond a person's control--are linked with specific forms of psychiatric impairment, including anxiety (Miller et al. 1976; Schwartz and Myers 1977) and self-destructive tendencies (Vinokur and Selzer 1975).

Unfortunately, virtually no estimates are available of how closely specific life event clusters are related to specific disorders, but the linkages between life events in general and depression and anxiety in particular appear better documented than those associated, for example, with schizophrenia. Undoubtedly, the availability of more diagnostically oriented survey research instruments, such as the Diagnostic Interview Schedule (Endicott and Spitzer 1978), will increase the tendency toward studying the role of life events in the etiology of more specific psychiatric disorders.

The literature is becoming more precise, as well, in considering how life events interact with various mediator variables in exerting an impact on mental disorder. It is surprising to note, however, that until recently, the literature has tended to report the relationship of sex, socioeconomic status, age, and racial/ethnic status to the rates of impairment and/or life events on a one-to-one basis (Dohrenwend and Dohrenwend 1969, 1974a, 1974b). Few efforts (Eaton 1978; Warheit 1979) have been made to assess the relative contributions of sociodemographic and/or life event variables to variations in disorder. Researchers are also currently suggesting a wide range of other mediator variables that may interact with one another, with sociodemographic characteristics, and/or with life events in ways that correlate with psychiatric disorder. Such mediator variables include persistent life strains (Pearlin and Schooler 1978), social support (Cobb 1976), utilization of health care services (Anderson et al. 1977), coping strategies (Pearlin and Schooler 1978), and personality variables such as powerlessness, lack of mastery, and externalization of control (Lefcourt 1976; Rabkin and Struening 1976).

In studies of general populations, the overall strength of the relationship between life events stress and psychiatric disability has tended to be quite small, accounting for less than 10 percent of the variance. This has been interpreted as suggesting that general genetic and/or familial factors are more relevant to the development of psychiatric disability than is external stress as defined by life change events. Alternatively, however, life change event stress might be compensated for, or moderated by, other mediating intrapersonal and social factors. Studying factors that mediate between stress and illness may have considerable therapeutic implications. As Rabkin and Struening (1976) point out, there are two broad groupings of such factors: the individual's ability to cope with stress and the buffering effects of the social supports available to that individual. Even though both relate directly to the established therapeutic techniques of brief psychotherapy and crisis intervention, their roles as mediators between life stress and illness have seldom been studied.

The individual's ability to cope with stress was emphasized by Lader (1972) in an empirically derived model of anxiety when he drew attention to a probable interaction between environmental stress, coping style, and consequent anxiety. Data supporting this hypothesis have been reported by several researchers. For example, Fontana et al. (1976) found that posthospitalization adjustment was better in those psychiatric patients who learned realistic coping skills to reduce the effects of life event stress. In a 40-year, longitudinal study of 100 exceptional males, Vaillant (1976) found that long-term psychological health could be predicted from the maturity of the ego-defensive coping style that subjects habitually used in the face of environmental crisis. Similarly, the positive outcome that results from using mature ego defenses rather than immature defenses has been substantiated by Meichenbaum et al. (1975) in their review of literature on the coping behaviors of patients with surgical conditions.

Social support is a second possible moderating variable. Cassel (1976) and Henderson (1977) have reviewed a wide range of studies indicating that the social support provided by primary groups serves as a protection, "buffering or cushioning the individual from the physiological or psychologic consequences of exposure to the stressor situation" (Cassel 1976, p. 111). For example, Nuckolls et al. (1972) found that while life events stress and "psychosocial assets," when considered separately, were not related to the complications of pregnancy, an interaction effect was indeed present. Of the subjects with high life event scores, 90 percent of those with low social assets had complications during the puerperium, but only 33 percent of those with high social assets had such complications.

The notion that social support is important in reducing the effects of stress is fundamental to the theory and practice of crisis intervention. For example, Porritt and Bordow (1976) found that road accident victims who were given active crisis intervention emphasizing the mobilization of social support had symptoms for shorter times than those given no crisis intervention. Furthermore, patients with relatively better outcomes reported more supportive reactions from significant others than did patients with relatively poorer outcomes, a finding that is consistent with the literature on the resolution of other crises, such as bereavement (Maddison and Walker 1967).

It thus appears reasonable to conclude that the simple, causal model of stress arousal-illness inadequately describes the complex relationship between life events change and psychiatric disability. Clearly, the model must be expanded at least to include coping responses, personal resources, and social support networks. In essence, the major question becomes, How do these mediating variables express their effect in relation to life event change? Previous studies have failed to establish clearly whether these three factors exert their effect independent of life event changes or whether they become important by moderating the effects of life event changes. The significance of this question in relation to cross-cultural study is substantial. The seemingly safe assumption that both social support networks and coping responses are strongly influenced by cultural values and expectations leads directly to the issue of cultural variation; that is, How do these two factors act as mediators in the relationship between life events change and psychiatric disability? Increased insight into this complex relationship will hold enormous therapeutic benefit in both primary and secondary intervention strategies.

Life Events Research and Hispanics. The chapter by Hough in this volume (chapter 5) provides an excellent overview of the literature in relation to life events and their resulting stresses on Hispanic populations. Hough and his colleagues have conducted a series of studies attempting to specify the relationship between selected environmental and/or familial factors and Hispanic illness patterns. Perhaps most interesting in the various studies by Hough and his colleagues was the finding that for Mexican respondents, events occurring to significant others in their environment (outside of spouse and children) were the most important predictors of symptoms of illness. Hough hypothesized that this finding, in addition to other data, suggests that extended social support networks are much more significant for Mexicans than for Anglo respondents, and that the disruption of these networks results in a greater expression of illness-oriented behavior. Such an explanation is consonant with the Mexican respondents' rating life events involving migration and social mobility as requiring more change, since such events would obviously disrupt extended social networks.

Life Events Stress and Illness: Current Research Needs. Including the effects of mediating variables, such as coping styles, social support networks, and personal assets, is vital if we wish to advance knowledge of how life events stress relates to mental health status in Hispanic populations. It can be argued that understanding the effects of mediating variables is a prerequisite to understanding the relationship between stress caused by life changes and mental health status in any population. The fact that mediating variables are most reflective of cultural mores and value expectations within the life events change-mental health status paradigm emphasizes the significance of their inclusion.

The debate in the literature continues as to what constitutes a valid list of life event changes, as well as which instruments assessing mental health status provide the most reliable and valid measurements. The general tenor of these arguments, however, remains within a universal context. More specifically, the issue tends to center on developing a list of life events that are universal for all individuals—regardless of culture. The measurement of mental health status is of a similar nature, although many have argued that any consideration of psychiatric symptomatology can or should include cultural overtones. When one begins to address the issues and problems involved in defining as well as assessing social support systems, coping responses, and personal resources, however, the significance of cultural factors acting as critical influences in shaping these variables must be considered.

Valle (1980) has provided an extensive review and critical analysis of the cultural characteristics of social support systems within the Mexican-American community. Ramirez and Castaneda (1974) have discussed the need to examine learning approaches (i.e., coping responses) among Mexican-Americans. Personal resources relating to cultural differences among Spanish-speaking people have been studied both in the United States and in Mexico (e.g., Holtzman et al. 1975). All these research efforts have tried to emphasize the importance of assessing cultural nuances in determining how these mediating variables interact with other factors, such as life events change and mental health status. Including the cultural factor, as defined by the mediating variables, provides a unifying framework to the life events change-mental health status model, because it enables the model to integrate a series of activities directed toward providing much needed information on the development of mental health or mental illness in Hispanic populations.

The focus of the model is on identifying potential risk factors (i.e., life events stress) and determining how they are mediated by social support networks, coping responses, and personal resources in the development and/or expression of mental health status, help-seeking behavior, and therapeutic intervention strategies. Key in this research model is its utility in providing insight into preventive techniques as determined by thoroughly examining the significant interactional processes (i.e., life events stress-mediating variables-mental health status).

Assessment of Mental Health Status in Relation to the Conceptual Model

To provide effective treatment for any client seeking mental health services, the therapist must conduct a thorough assessment of the client's presenting problem, events precipitating the problem, historical and present context of the problem, and other relevant mental health factors. In the past, however, assessments of problems affecting Mexican-Americans seeking mental health services have failed to consider adequately the sociocultural environment in which such clients must survive.

Accordingly, the mental health services provided to Mexican-American clients have frequently been ineffective or of limited value when the clients returned to their home environment. Consequently, many Mexican-American clients have felt that such services were irrelevant or not helpful; thus, they have often stopped returning for treatment (Bakeland and Lundwall 1975; Miranda and Castro 1977).

In contrast, if the assessment process includes a consideration of the Mexican-American client's presenting problem within the dynamic and holistic context of the home environment, and his or her personal-environmental assets and deficiencies, then a treatment intervention may be planned that is congruent with, and more relevant to, the wider complex of the client's needs. In addition, if such a dynamic personal-environmental assessment system can be interfaced with existing diagnostic criteria (e.g., DSM III diagnostic criteria), then current clinical knowledge can be made more culturally relevant to the specific needs of Mexican-American clients.

The literature has identified an array of constructs that describe aversive environmental conditions (stressors) and qualities of the individual (e.g., ego strength) which, when interacting in certain combinations, will result in the cognitive-neuroendocrinological condition described as stress (Baum et al. 1982). In his appraisal-reappraisal model, Richard Lazarus (1966) described the process by which a certain environmental event will be perceived by the individual as stressful. Given the person's appraisal of the event and of his or her ability to cope with that event, the individual will experience stress and engage in a pattern of coping behavior--either palliative behavior or instrumental behavior.

This basic model emphasized the importance of the interplay between external events and cognitive information processing as determinants in the experience of stress.

Since the pioneering work of Lazarus, several models describing key factors involved in the onset of stress have been proposed (Mason 1975). In general, these factors are (1) life change events, (2) personal resources, (3) coping responses, and (4) social supports. Various investigators have developed instruments to measure these factors, and have done so with varying degrees of success. To date, however, no group of investigators have devised measures of these factors in combination to assess how each of them interrelates with the others. Moreover, because such a system has not been available, the assessment of each key factor in relation to clients' mental health status has also been absent from the set of mental health measures in use by clinicians and researchers. Each of these factors needs particular attention for truly effective treatment planning for Mexican-American clients, many of whom are beset by potent environmental stressors and have culturally different personal assets.

Measurement Issues

Assessment of Life Change Events. The life events literature has provided some understanding about how a stressful major life event (see figure 7-1) may have an impact on the psychological integrity as well as the physical health of the individual. However, this approach has been criticized for its methodological weaknesses (Rabkin and Struening 1976; Sarason et al. 1975). In addition, little work has been done to examine the differing types of life stressors that may be culturally relevant for various Mexican-Americans. Although one approach to evaluating life stressors has been to consider the individual's own view of the level of stress induced by a given life event (Redfield and Stone 1979; Vinokur and Selzer 1975), the categories of stressors provided for respondents to choose from often do not include type of stressors confronting many Mexican-Americans (a lack of content validity of the scale). Identifying such culturally specific stressors and a system for evaluating their impact on a certain Mexican-American client may help the diagnostician arrive at a more accurate, reliable, and valid indicator of the degree of stress experienced by the client prior to seeking assistance. Such data would be useful in evaluating the adaptive abilities of individual Mexican-American clients and accordingly, in planning appropriate treatment.

One apparently promising approach related to life events is the Hassles and Uplifts Scales developed by the Lazarus research group at Berkeley (Kanner et al. 1981). This approach focuses on minor but recurring daily irritants and gratifying events that, taken as a whole, have been found to be better predictors of concurrent and subsequent symptoms than have major life events. These scales have not yet been used with low-income or Mexican-American subjects. Nevertheless, the "daily hassles" approach may well provide more detailed and effective information on the antecedents of stress and distress for Mexican-Americans.

In general, a more comprehensive instrument for assessing life change events with relevance for Mexican-Americans would incorporate items tapping both recurring minor stressors (daily hassles) and occasional major stressors. Such an instrument should also improve the content validity of its items as they relate to Mexican-Americans by incorporating life change items of greater concern or stress value to most Mexican-Americans, as well as items generally considered stressful across cultures. This instrument should also allow for the subject's own ratings of the stress value of each life change event. Previous measures of life stress events that have failed to consider the individual's viewpoint have been criticized for providing stress values for life events based on group ratings that are inaccurate for various individuals, particularly if the individual is from a culturally different background. This life change events scale should also present its items in a format minimizing the subject's need to recall events from the distant past, a procedure that is subject to memory distortions (retrospective contamination) (Brown 1974). Instead, the scale should require only four initial short-term retrospective recalls of life events as a baseline. In addition, it would incorporate a prospective rating of life change events. This approach would provide more accurate life change events data.

Assessment of Coping Responses. Coping responses are behaviors or patterns of thinking that a person may use (1) to modify a situation, (2) to control the meaning of a stressful experience, or (3) to control the experience of stress itself (Pearlin and Schooler 1978). In a similar analysis, when looking at coping responses, Lazarus (1975) distinguished between *active* coping responses--actions taken by the person to deal directly with a given stressor--and *palliative* coping responses--actions taken to reduce the level of stress experienced but not addressing the stressor itself (e.g., drug use).

A coping response may also have adaptive or maladaptive qualities, depending on the consequence (positive or negative) of that coping response. Moreover, the consequence of the coping response will depend on the situational context in which the response is made. For example, Pearlin and Schooler (1978) found that the coping response of "selective ignoring," attempting not to deal with a situational conflict, exacerbated stress (was maladaptive) in the contexts (role areas) of marriage and parenting but not in household economics or occupation (i.e., it was not maladaptive in these contexts). Furthermore, these investigators found that types of coping responses were affected by sex and socioeconomic status. Women tended to use certain coping responses more often than men, and there was an imbalance in the coping responses available by sex; women tended to use coping responses that were likely to result in more rather than less stress. Regarding the moderating effects of socioeconomic status, these investigators note that the poorer and less educated are generally exposed to more environmental stressors, yet these people appear to use less effective coping responses. Thus, men and the more socially advantaged tend to have the response repertoires available to reduce rather than increase stress.

The aforementioned patterns underscore the complex issues in the accurate assessment of coping responses. Such a scale for assessing coping responses should consider (1) the situational context; (2) the coping response itself; (3) the consequences (adaptive if the level of stress is reduced, maladaptive if the level of stress is increased); and (4) personal demographics of the individual (e.g., sex, socioeconomic status). Pearlin and Schooler (1978) have identified four sets of coping responses. Each set is specific to a particular situational context: (1) in a marital relationship, (2) in parenting, (3) in household economics, and (4) in an occupation or on the job.

Developing a measure of the effectiveness of coping responses for Mexican-Americans would entail (1) identifying about four situational contexts of importance to Mexican-Americans and (2) identifying a series of coping responses specific to each context--either a priori and then generating scale items or first by generating scale items and then conducting a factor analysis. Developing such a scale would also require evaluating the effectiveness of each response per situational context by observing the consequences of using such a coping response (i.e., stress reduction or stress increase). Likert-type scaling may also be used here to measure how often the subject makes the particular coping responses.

Assessment of Personal Resources. Pearlin and Schooler (1978), using factor analytic methods, identified three types of personal resources describing a person's resilience when coping with stressors: self-esteem, self-denigration, and mastery. Each of these constructs serves as a personal competency that tends to be stable across situations (Mischel 1973) and upon which a person a may draw when confronted with threats from events or objects in the environment. Self-esteem is a person's positive attitude toward self, whereas self-denigration is the opposite--a person's negative attitude toward self. Mastery is the extent to which one regards oneself as being able to exercise control over events in the environment. Each of these indexes of inner strength is a product of the person's history of success and failure and of that individual's general evaluation of the self, based on this learning history. A person's tendencies to exhibit an inner strength and hardiness in the face of danger or powerful stressors have alternately been described as courage, ego-strength (Barron 1953), and ego-resilience (Block 1965).

Each of these psychological constructs--self-esteem, self-denigration, and mastery--would appear to be an etic construct, having fairly equivalent meaning across cultures. However, the specific set of items defining each of these constructs may exhibit some variations crossculturally.

The construction of a measure to assess self-esteem, self-denigration, and mastery for Mexican-Americans would begin with a large set of items that purport to describe each of these three constructs. Then, for scaling purposes, those items having a low covariance with other items in the set would be excluded, leaving a core of items from which a psychometrically reliable and valid scale might be developed (Edwards 1970).

Although it is recognized that self-esteem, self-denigration, and mastery are complex, multifactorial constructs, the assessment of self-esteem and self-denigration would nevertheless involve developing scales of positive and negative attitudes toward self. Likert-type attitude scales may be used in developing these measures.

Pearlin and Schooler (1978) have provided some sample scale items useful for writing other items to tap patterns of self-esteem and self-denigration among Mexican-Americans. To assess mastery, Likert-type scaling may also be used to measure the degree to which a person feels in control of aspects of self and the environment, aspects with an impact on the person's mental health.

Assessment of Social Supports and of Natural Networks. Further reliable information about how natural support systems function (see figure 7-1) for Mexican-Americans would be useful now--as funding dwindles for mental health services. Existing mental health services could become more efficient and cost effective if natural family support systems can be mobilized (1) to reduce the number of visits required to attain a certain treatment goal and (2) to increase treatment effects by fostering their generalization to the client's home setting. In short, natural support systems could be mobilized to complement treatment goals. Similarly, in a behavioral approach, the ecobehavioral framework encourages teaching the client's family members to function as outside therapists, behavior managers (Bernstein 1982). However, effective and culturally appropriate treatment would require the design of a treatment that complements the client's natural support system, one that can mobilize existing family resources for the benefit of the Mexican-American client. Further research on the general qualities of most Mexican-American family support systems, as well as on qualities unique to individual Mexican-American families, would aid in providing more effective mental health services.

Several authors have identified some general qualities of Hispanic support systems. Valle (1980) has described three types of natural support systems found among Mexican-Americans: (1) aggregate, formalized mutual aid groups or organizations; (2) linkperson, support systems based upon friendship or coparenthood (compadrazgo); and (3) kinship, support systems composed of nuclear and extended family members. Learning more about the help-seeking strategies of Mexican-Americans who use the linkperson and kinship natural systems would help create a more effective and efficient delivery of mental health services.

Valle (1980) and Velez (1980) emphasize the importance of key concepts in relation to help seeking among Mexican-Americans. Confianza (trust) is regarded as a critical element in the development of a help-seeking/help-giving relationship among many Mexican-Americans. In addition, the help seeker must be able to maintain dignidad (dignity) while seeking help and should be shown respeto (respect) by the help giver. As a part of the help-seeking/help-giving process, a reciprocal exchange occurs, generally initiated by platica, a casual friendly conversation in which rapport, trust, and warmth are developed between helper and helpee. As intimacy between helper and helpee grows, the help seeker becomes more open in seeking help, as well as in providing help should the need arise.

One of the most often cited barriers to effective help giving is a clash in expectation between client and help giver (Rosenthal and Frank 1958). Clashing expectations with regard to the help-giving and help-seeking process have often led to client dissatisfaction and a premature departure from therapy (Bakeland and Lundwall 1975).

Schreiber and Homiak (1981) have noted that many Mexican-Americans expect a degree of warmth and interest toward them from the help giver, and that extreme "professionalism," efficiency, coldness, and distance may be perceived as a sign of hostility, discrimination, and/or rejection. These authors have also noted that many Mexican-Americans will respond to an authoritative help giver who, in addition to being competent, projects respect toward and acceptance of them. By contrast, an authoritarian help giver would violate the expectation of many Mexican-American clients when issuing directives and discounting the client's dignity. These general issues with regard to the expectations of various Mexican-Americans seeking health and mental health services should be examined in detail to understand how to provide services that will actually meet their needs and expectations and thus reduce the likelihood of their dropping out of therapy (Miranda and Castro 1977). In addition, some index of client-therapist match and fit could be a useful decision-making device to supplement the therapist's clinical reaction to the client in deciding whether both are compatible enough to work together or whether a referral to another therapist is best (Lazarus 1981).

A conceptual aid in providing effective services to Mexican-American clients is contributed by Schaefer, Coyne, and Lazarus (1981), who distinguish between three types of perceived social support: tangible, emotional, and informational. They note that, despite the good intentions of the help giver, if a discrepancy exists between the type of help given by the help giver (e.g., emotional) and the type of help sought by the client (e.g., tangible), then the client will usually feel dissatisfied with the aid provided and thus will limit or end the relationship with the help giver. Research with Mexican-American clients that identifies client expectancies, preferred type of social support in a given help-seeking situation, and determinants of satisfaction would provide valuable information for devising more effective and efficient mental health services for Mexican-Americans.

These issues are important in relation to the assessment of social supports. Cobb (1976) has defined social support as information that provides the person in need with tangible evidence that he or she is a loved and esteemed member of a social system that fosters relationships of mutual obligation, trust, and caring. Other researchers (Dean and Lin 1977) have distinguished between expressive aid and instrumental aid as two types of aid provided by a system of social supports.

Schaefer, Coyne, and Lazarus (1981) have developed a Social Support Questionnaire to measure the emotional, tangible, and informational functions of social support. This questionnaire assesses a tangible social support score as being equivalent to the number of incidents for which a person has someone to whom he or she can go for help in nine different situations. The situations range from minor ones, such as borrowing a cup of sugar, to major ones, such as needing care following an illness or injury. The questionnaire also assesses the informational and emotional functions of social support by having each subject list spouse, close friends, relatives, coworkers, neighbors, and supervisors. Then each helper's support value is rated: (1) in giving helpful information and guidance, (2) in being reliable, (3) in being able to boost the subject's spirits, (4) in making the subject feel cared for, and (5) in being available and accessible for confiding. These investigators also obtained an index of the subject's social network that examined number of friends and relatives, frequency of contact, membership in clubs and community organizations, and marital status and relationship.

The aforementioned studies highlight the view that both quality and size of the subject's social support network need to be examined. Nevertheless, evidence from certain studies (e.g., Lowenthal and Haven 1968) indicates that only certain social ties, and not sheer number of ties or frequency of interaction, are associated with effective social support in the elderly. According to other evidence (Keefe et al. 1978a) among 381 Mexican-American respondents, 64 percent indicated that during an emotional crisis, they did not seek help from more than one relative. These studies underscore the importance of evaluating the quality of a person's social support network and, in particular, the quality of a single prominent relationship, such as that with a spouse or confidant.

In developing a scale to assess social supports among Mexican-Americans, the size of the person's social support network may be assessed. Even more important, however, is the quality of relationships with a spouse and/or confidant and with a few significant others. These assessments should be made in relation to how many help-seeking incidents occur in a number of situations that are culturally relevant to Mexican-Americans and that vary in their degree of stress potential. They should also be rated according to the perceived support value of the type of aid provided by the helper.

Assessment of Mental Health Status. At present, two major modes of psychological/psychiatric assessment are the nosological method of psychiatric diagnosis, presented in the Diagnostic and Statistical Manual (DSM III) (American Psychiatric Association 1980), and the method of behavioral assessment developed by a series of investigators (Goldfried and Kent 1972; Kanfer and Grimm 1977; Kanfer and Saslow 1969). Each approach has inherent strengths and weaknesses. In both cases, however, a void exists in terms of any examination of the person-environment interactions that lead to stress and the sociocultural context affecting whether observed symptoms are considered to constitute true psychopathology. Both approaches are limited in the extent to which they can explicitly incorporate cultural sensitivity in the diagnosis and assessment of Mexican-American clients.

The strength of DSM III lies in its presentation of explicit, detailed, concrete, and clinically rich criteria of the symptoms that must be observed in order to diagnose a given psychiatric disorder. Its weakness, however, lies in its static categorization. Once a diagnosis is established, its clinical usefulness is often questionable, since the treatment of choice often remains unspecified and is frequently left to the particular biases of the clinician (Davison and Neale 1982). By contrast, behavioral assessment focuses on identifying a target maladaptive behavior that is under the control of certain antecedents and/or consequences, that if changed, will yield a change in the maladaptive behavior. This method's strength is that it explicitly dictates the treatment of choice. Its weakness is that it is often useful for assessing specific and circumscribed disorders; thus, its treatment of the particular clinical problem, albeit effective, sacrifices breadth and clinical richness for specificity.

Psychiatric Diagnosis (DMS III). The Diagnostic and Statistical Manual (DSM III) (American Psychiatric Association 1980) has provided improved classification criteria compared to its predecessor, leading to better reliability and validity in the assessment of psychological disorders (Davison and Neale 1982; Murphy 1980). In addition, DSM III incorporates a multiaxial system of assessment. Axes I, II, and III describe and evaluate an individual's present condition: (I) chief clinical syndrome, (II) personality or specific developmental disorder, and (III) physical disorders. In addition, Axes IV and V provide information about the person's life situation and probable degree of success in coping. Axis IV measures the degree of psychosocial stressors contributing to the present disorder rated on a 7-point scale. Axis V predicts the client's highest level of adaptive functioning in the past year as rated on a 6-point scale, from superior to grossly impaired.

The terms used in DSM III to describe the degree of psychosocial stressors are events that suggest seven levels of psychosocial stress. These descriptors may not provide enough culturally relevant information, however, for rating the degree of psychosocial stress experienced by low-income Mexican-Americans, who would be exposed to types of environmental stressors quite different from those indicated in DSM III (DSM III, p. 27). It would thus be useful to list the types of ongoing psychosocial stressors that are specific to Mexican-Americans living in certain types of communities (e.g., dilapidated housing, overcrowding, noise pollution, crime, fear of apprehension by immigration officials). Such a listing would help the diagnostician in evaluating and appreciating the ongoing aversive qualities of the environment to which the Mexican-American person has been exposed on a daily basis, and that may affect the client's prognosis. Will a Mexican-American client rated as having "no apparent psychosocial stressor," but who lives in a crowded urban setting, have a less hopeful prognosis than another client with no apparent psychosocial stressor who lives in a quiet, suburban neighborhood?

Along similar lines, the terms describing the levels of adaptive functioning (Axis V) are also suggestive but nonspecific about what may constitute adaptive functioning for many Mexican-Americans (DSM III p. 29). For a more complete and culturally relevant diagnostic assessment, it would be helpful to identify aspects of adaptive functioning that are culturally specific to the lifestyles of various Mexican-Americans. Such variables as socioeconomic status, age, and degree of chronic physical illness may serve as moderator variables among Mexican-Americans. Such variables would need to be considered in rating the *true* level of adaptive functioning of a Mexican-American client who *appears* to be functioning at a low level. More details about the lifestyles of various Mexican-Americans are needed to augment our clinical understanding of truly adaptive functioning in the face of repeated exposure to aversive environments.

Thus, DSM III provides for some, albeit insufficient, consideration of psychosocial factors as they affect the mental health status of the Mexican-American client. In general, the degree to which Mexican-Americans are exposed to generic stressors in society, as well as to culturally specific or community-specific stressors, should be assessed more effectively and objectively. Related to this is the need to evaluate the highest level of adaptive functioning of the Mexican-American client, not only in relation to generic, dominant societal standards but also local or community standards.

Behavioral Assessment. An assessment methodology developed within the last decade that offers a promise of reliable and valid assessments for Mexican-Americans is behavioral assessment. Instead of focusing on discrete categories that are descriptive of a certain kind of psychopathology, behavioral assessment attempts to identify factors that maintain and alter certain specific behavioral patterns (Ciminero et al. 1977; Sue et al. 1981). The heart of behavioral assessment involves conducting a *functional analysis*, an evaluation of the links between (1) the antecedent conditions (difficulties in stimulus control of behavior), (2) the problem behavior (deficient or aversive behavioral repertoires), and (3) the consequences that affect the problem behavior (nonexistent, ineffective, or aversive reinforcers).

Behavioral assessment also includes the role of cognitive processes (irrational or inaccurate beliefs) as they lead to problem behaviors. However, despite the growth of this type of assessment, which has been regarded as a new direction for clinical psychology (Cone and Hawkins 1977), little work has been done to utilize and/or modify this approach to achieve a culturally appropriate assessment method for Mexican-Americans seeking mental health care. Behavioral assessment does offer some advantages over the usual diagnostic approach. First, it focuses on maladaptive behaviors rather than on "psychopathology"; thus, it reduces the role of cultural bias in assessing psychopathology in Mexican-Americans. Second, it explicitly examines environmental stimuli (e.g., family, community) that may serve as key stimuli affecting the person's behavior. Finally, assessment and treatment are so intimately linked in this approach that the mode of treatment indicated is explicitly dictated by an effective assessment. Because of these advantages, the behavioral approach provides much promise for more accurate, effective, and efficient assessment for the treatment of Mexican-American clients than is now available (Munoz 1982). Nevertheless, because few researchers or clinicians have used this approach with Mexican-American clients, issues specific to the assessment and treatment of this client population must still be identified.

In addition, current behavioral terms and procedures need a translation into Spanish that holds meaning for Mexican-American clients of varying levels of education and acculturation. The goal of many behavioral procedures, such as contingency management, assertiveness training, and self-control, is to help the client eventually to become his or her own behavior manager--independent of the therapist. For this to occur, the Mexican-American client needs to be taught these basic behavioral concepts in terms that he or she can understand. In this manner, clients will be able to understand their baseline behavioral status and can work toward an improvement using learned behavioral procedures. Much can be done to adjust existing behavioral assessment procedures to meet the needs of Mexican-American clients. For example, a need exists to identify and assess assertion skills and behaviors that are indeed assertive (i.e., neither passive nor aggressive) in the Mexican-American client's particular environment.

A Compromise in Clinical Assessment. Given the strengths and weaknesses of the psychiatric diagnosis and the behavioral assessment, the best system to assess Mexican-American clients would capitalize on the strengths of each approach and, in addition, would explicitly incorporate cultural sensitivity into the diagnosis of clinical symptomatology. Such an assessment system would need to be multimodal.

The best example of such a system is the multimodal assessment described by Lazarus (1981). Lazarus uses the acronym BASIC I.D. to refer to each of the assessment components: behavior, affect, sensation, imagery, cognition, interpersonal relationships, and drugs/biochemical. This multimodal approach allows for the assessment of a clinical problem across these seven dimensions. It also enables the presentation of "structural profiles" that depict the problem's severity in each of these dimensions as measured on a 10-point scale. Lazarus notes, however, that although this system was developed to assess the entire range of human personality, "sociocultural, political and certain environmental factors fall outside the BASIC I.D." schema (Lazarus 1981, p. 14). Thus, a system similar to the BASIC I.D. schema, but including an examination of personal, family, and other sociocultural and environmental factors, would be very useful for assessing the various presenting problems of the many Mexican-American clients seeking mental health assistance.

Conclusion

The proposed conceptual model attempts to bridge this gap in psychosocial and culturally sensitive assessment by proposing the development of a set of brief, yet unified, valid, and reliable measures of these factors that are culturally relevant to Mexican-Americans. Each of these measures would provide a scaled index of life stress events, coping response effectiveness, personal resources, and social supports and mental health status, so that a "structural profile" similar to that presented by Lazarus could be generated for each client. This structural profile would provide researchers and clinicians with a quantitative and graphic discriptor of a given Mexican-American client's personal-environmental assets and deficiencies. It would also indicate the loci where a certain type of treatment intervention is most acutely needed. Such measures would, by design, have content validity (and cultural sensitivity) through the inclusion of items that tap the life experiences of various Mexican-American clients. In addition, these measures would be state, as opposed to trait, measures. Thus, they would provide a reliable assessment of a client's present level of resources or deficits for each key variable the degree of change in each variable would be detectable, given changes in the client's personal-environmental status.

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208

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209

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CHAPTER 8

CONTROLARSE AND THE PROBLEMS OF LIFE AMONG LATINO IMMIGRANTS

Lucy M. Cohen

Introduction

This chapter focuses on the theme of controlarse (control of the self) and on mechanisms used by Latino immigrants to deal with symptoms of anxiety, anger, and depression. The theme is discussed by using two major areas as sources of concern: (1) the behavioral problems of children, and (2) conflict between men and women in conjugal relationships.

The research upon which this article is based is drawn from a study of cultural influences on the patterns of stress and illness among Latino immigrants, most of whom were from Central and South America, in Washington, D.C. Drawn mostly from Guatemala, El Salvador, and the Andean nations, immigrants from these regions today constitute approximately 20 percent of the Spanish-speaking population of the United States.[1] As a group, they

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[1] Data on permanent residents and other than permanent residents from the U.S. Immigration and Naturalization Service, Address Report Cards (Form I-53) for the years 1971 and 1973, show the composition of the population of Latin American origin for the Washington metropolitan area, by country of origin. Cubans were twice as numerous as those from any other Latin American country, particularly in the suburban areas. Colombia, Peru, and Ecuador were the South American countries with the largest proportions of immigrants, while Guatemala and El Salvador were the Central American countries with the largest representations. The concentrations of Central and South Americans from these countries in Washington are similar to national data on residents from these areas. In 1974, El Salvador and Guatemala and Colombia, Argentina, and Ecuador were the countries from this part of the Western Hemisphere (continued)

are among the most recent newcomers to this country from Latin America, and they include students, permanent residents, American citizens, and undocumented peoples.

The investigation focused on three areas: (1) the study of beliefs and perceptions about disease and the practices followed in managing illness; (2) the identification of levels of stress by sociocultural characteristics; and (3) description of selected patterns of conflict resolution. The basic findings of this research have been published in several other publications (Cohen 1979; Coelho and Ahmed 1980; "The Female Factor" 1977). This chapter highlights material about patterns of conflict resolution to provide insights into the processes that contribute to vulnerability and symptom development by some Latinos and to resilience and mastery over stress by others.

The population was drawn from two sources. The first was a community group of known seekers of health services from a multipurpose community center. The second was composed of the parents of children from the two schools in Washington, D.C. with the highest proportions of Spanish-speaking children.[2] The total of 97 respondents in the population selected for this study consisted of 71 women and 26 men. The group of known seekers of service, hereinafter called the Community group, was composed of 48 individuals. They represented the entire group of patients who had sought health care in a specific time period, plus a randomly selected number of people originating from countries adjacent to the origins of the health care seekers. The 49 School parent respondents were chosen by random stratified sampling to match the Community group in country or area of origin.

For comparison, the health status of the School group was unknown prior to research. The School parents were selected because they were assumed to be a more stable population than the Community respondents. Over half (53.1 percent) of the School parents had been in the United States 6 years or more, whereas only 16.7 percent of the Community group had been in

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[1](continued) with the highest numbers of residents in the United States (U.S. Immigration and Naturalization Service, Annual Report, 1974). For more recent information, consult Massey and Schnabel and Bureau of the Census (1982).

[2] One of the schools was a public school, and the other was parochial. Forty percent of the children in the parochial school were from households with parents of Latin American origin; 53.4 percent of the children in the public school were of similar origin.

the United States that long. Whereas most School parents were permanent residents or United States citizens, 41.7 percent of the Community respondents were undocumented workers.

A group of 40 persons from the total population was studied for 1 year, with the aim of developing a more detailed understanding of their way of life. Of particular interest were their perspectives about ongoing problems of disease and its management, and about the resolution of conflict. The author also conducted 3 months of field work in Colombia and El Salvador, in the places of origin of 14 of the respondents, and carried out semistructured interviews with immigrants who had gone back home. Observation in small town and in urban settings, and discussions with professional and lay practitioners, offered information on the changing nature of health care delivery in these areas.[3]

Controlarse: A Central Concept to Manage Conflict

The culture of any human group offers its members guidelines about what to do with the problems and difficulties they encounter in daily life. Defense, mastery, and coping are mediating mechanisms that help individuals to deal with major and minor problems of adaptation. Following White's definition, a defense is an "adaptive response in which present danger and anxiety are of central importance." Mastery is an adaptive response to the problems that have a certain cognitive or manipulative dimension but that, at the same time, are not heavily weighted with anxiety. Coping refers to adaptation under relatively difficult conditions (White 1974).

Conflict-solving mechanisms are guiding forces in the behavior patterns followed by individuals as they face the inconsistencies and contradictions of their lives. With the help of these mechanisms, people respond to the perception of a threatening condition, and they decide on potential avenues for its solution or mastery (Lazarus et al. 1974). Each culture provides a framework of strategies to guide men and women facing difficult problems. The differing demands and experiences of various cultural systems may result in variations in the mediating mechanisms relied upon to resolve problems. The challenges of adaptation that Latino immigrants encounter during settlement can contribute to increased sensitivity of impairment. The patterns followed during the process of adaptation are shaped by the meaning they give to cultural traditions, the specific role demands of their positions in the life cycle, and their individual experiences.

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[3] It should be noted that I have a longstanding interest in Colombia, demonstrated through work experience in the country and research in areas of culture change and medical care. I was born in Costa Rica and have kinship ties in El Salvador.

Controlarse is a central concept upon which Latinos draw to govern the management of stress. It is a central mechanism for the regulation of behavior. It enables a Latino to exercise discipline over unpleasant feelings, thoughts, and moods. Through control of the self, Latinos keep in check negative feelings associated with unpleasant events (*disgustos*) or troubles and upsetting situations (*contrariedades*). *Controlarse* helps to hold back outbursts of feeling such as anger (*corajes*, *enojos*, or *rabias*) or the reactions of fear that result from such unexpected experiences as *susto* (magical fright).

Animo decaido (low spirits) is one of the frequent first indicators of depression. The persistence of depressed emotions leads to states of sorrow (*pena*), suffering (*sufrimiento*), and feelings of being disgraced (*desgracia*). Descriptions of the suffering woman (*mujer sufrida*) or the disgraced man (*hombre desgraciado*) refer to those who have met with sorrow-laden events. Although Latinos may receive the sympathy of friends and family for the unfortunate events they have met, they are expected to exercise control of their feelings and to raise their spirits.

Control of one's emotions and moods leads to various states, such as *resignarse* (to resign oneself), *no pensar* (not to think; in this context, to avoid thinking of a problem), or *sobreponerse* (to overcome oneself). Resignation reflects acceptance of a sorrowful event and consent to fate, while *no pensar* refers to avoiding confrontation and the desire to suppress disturbing thoughts and feelings. *Sobreponerse* is the effort to overcome reactions to situations conducive to stress; it represents a Latino's willingness to confront a problem and a desire to alter his or her reaction to disturbance.

In socializing their sons and daughters, Latino parents place priority on teaching children proper conduct through emphasizing the containment of feelings. Girls, for instance, who must learn how to elicit respect and maintain a proper distance in interpersonal relations with boys, are taught to govern their general demeanor through their ability to suppress their feelings. The belief that boys tend to express aggression overtly leads, likewise, to emphasis on exercising moderation in the display of aggression.

Men and women in conjugal relations emphasize avoiding a direct expression of conflict. This ideal is attained through a mutually shared belief that, when interpersonal conflicts occur, they should avoid the overt expression of negative feelings. A Latino who loses control of his ability to govern disturbing thoughts, feelings, and moods frequently reports changes in personality that are described as modifications in caracter (character). For example, men who experience an increasing difficulty in controlling their feelings of anger (enojo) over unpleasant situations note that, as a result, their character has changed (tengo el caracter alterado). Women who feel that they are unable to restrain their anxiety speak also of changes in caracter.

The dynamic aspects of these concepts can be understood by giving careful attention to the common, as well as the contrasting, expectations of the feminine and masculine ideals of controlarse. These are illustrated in the following discussion of the management of conflict during the process of entry and settlement; the discussion focuses on relations between parents and children and between husband and wife.

Entry and Settlement. The movement and settlement of the Latinos in this study was led largely by women. Moreover, most of these women had begun to establish their own households in Latin America prior to immigration; thus, they were separated from children, husbands, or other relatives for whom they had assumed some responsibility.

Detailed examination of the history and sequence of migration followed by Latinos and their significant others in this study showed that, in 68.9 percent of the cases, a woman was the first of the family group to come to the United States. A good number of these women had initiated the move after having established conjugal relationships or having had children. This was also the case for the men. In other words, this was not a migration movement of single individuals who had not yet assumed parental roles. It was led by individuals—both men and women—many of whom had already become parents (Cohen 1979).

The initiative exercised by women as they became the organizers and counselors for other relatives who followed them to this country can be noted in the case of Magdalena Torres, one of the School parents in the study. At the time of the research, her household consisted of her husband and herself, two children, and a nephew. She worked as a beautician, although she had entered as a domestic with an American family for whom she had worked in her home country. Six months after her arrival, she brought one of her sisters to Washington, and a second sister followed a year later. Three adult nephews--sons of her sisters--entered next. She then succeeded in convincing her mother to come visit them. She and the two sisters and their families settled in apartments located on the same block. These networks of kin members were important sources of support, not only in Washington but in the places left behind as well.

Magdalena and her husband were married in the United States, but they had known each other in the home country. Both had children by previous marriages. Her husband left his children by his first marriage with their maternal relatives, while Magdalena brought her child to the United States after she settled here. At the time of the research, she was involved in helping three other nephews come to Washington.

Characteristically, parents in the early phases of settlement left some of their children aged 17 and younger in Latin America. Parents with younger children left behind depended almost exclusively on the maternal grandmother or maternal aunts for child care. During the early phases of settlement in Washington, therefore, both the caretakers of children in the home country and a number of parents in Washington faced the challenges of adaptation and coping with problems posed by resettlement in general, and by the special character of caring for children.

During field work in Latin America, the author visited some of the homes with children of immigrants in Colombia and El Salvador. Prudencia Sanchez, who was 62 years old, lived with her husband, one unmarried son, and eight grandchildren aged 17 and under. The grandchildren belonged to four of her children who had gone to work in Washington. During my visit, Prudencia expressed concern about her inability to cope with a recurrent intestinal problem and the signs of weakness (debilidad) found among some of the grandchildren. Prudencia's responsibility for the eight grandchildren, an alcoholic husband, and a son with the same problem was recognized as the source of her continuous suffering from "nerves." She hoped that as these children got older, they would join their parents in Washington. As a matter of fact, during the year after this study, the oldest grandchild (an 18-year-old girl) and her new husband did leave for Washington.

While the grandmothers coped with responsibilities of substitute caretaking in the places of origin, the immigrant mothers in Washington searched for ways to deal with anxieties and distresses that they associated with the course of the lives of absent children. To relieve symptoms of anxiety, they frequently sought a medical practitioner and medicines. An immigrant woman, Cruz Nuñez, for example, described a 2-week bout with insomnia, for which she hoped to receive medical relief from a general practitioner. Upon more detailed discussion, she noted that sometimes she "thought too much" (a veces uno piensa mucho; the connotation is to think too much of a problem). She had several sons in her home country under the care of a sister, and one of these boys had dropped out of school. The sister at home had found a boarding school for the boy, but she needed money for his board and tuition. Cruz, however, was hard pressed for money. Her problems had become accentuated by the recent unemployment of her 20-year-old son, who was with her in the United States. He had been laid off after a 1-night absence from his job. Actually, he had missed work to attend his graduation from a high school equivalency program.

Most of the immigrants entered with the goal of working to improve the family's socioeconomic status. Among these working-class Latinos there are marked contrasts in educational levels by sex. Most of the men had completed their education at the primary level, in contrast to the women, who tended not to have finished primary school. These differences are reflected in the type of work and annual income of the male and female Latino immigrants, accentuated by the structure of the labor force in the United States.

Men and women in this study worked largely in unskilled or semiskilled jobs, but there was greater occupational mobility for men than for women. Furthermore, the Latina who had previously been employed in her home country was underemployed in the United States to a greater extent than were men. Women in this study tended to fall into the $3,999-or-less annual income category, whereas men were concentrated in the $4,000 to $5,999 group.

Most men and women worked full time, and of the full-time workers, a sizable proportion held "moonlighting" jobs as well. The respondents with heavy work and family responsibilities frequently pointed to their belief that parents had to sacrifice themselves for their children or loved ones. Difficult types of work or the burdens of long hours were tolerated because of this belief, as noted in the following illustrations of the Estela León and José Ramos families. Estela was a single mother living with her three daughters (22, 20, and 14 years old), a female cousin, and a grandson. Her two teenaged sons remained in a Central American country under the care of an aunt, a woman who had cared for the children of all her siblings who had gone to Washington until the parents were ready to send for them.

Estela's annual earnings fell in the $3,000 to $3,999 range. She worked from Monday to Friday, starting every day with the 6 a.m. to 3 p.m. shift in a cafeteria. She came home and left again for a 6 p.m. to 10 p.m. stint with a janitorial service for which she cleaned buildings. Her 22-year-old daughter worked as a waitress, supporting her year-old infant, and she helped with the household expenses. The 20-year-old daughter was in a special training program to improve her clerical skills. The three women were saving money to bring the remaining two boys to Washington. Estela indicated that she frequently felt tired by the rush of this schedule and by her responsibilities at home. She hoped, however, that when she succeeded in bringing her remaining two sons to Washington, her sacrifices would be rewarded.

In the case of José Ramos, a man with a heart problem, the family had moved to a small home in the suburbs, and they had a number of financial obligations. Although José and his wife harbored some fears about the threats of a heart attack (José's father had died of congestive heart failure at the age of 35), they retained the belief that parents had to sacrifice themselves for the welfare of their children.

Processes of Socialization and the Regulation of Behavior

Descriptions of the behavior problems of children living with their parents in Washington offered insights into the roles for which they were being socialized. The parents were concerned with problems that reflected the cultural expectations of behavior for adult men and women, which are linked to the concepts of containment and the control of negative sentiments. Contrasts were noted between boys and girls in the sex role expectations for proper conduct and the regulation of behavior.

In rearing girls of elementary school age, parents expressed a central concern with providing an environment that nurtured an appreciation for the value of respeto (respect). In recognition of this ideal, girls were required to maintain a proper distance and control of self in relation to boys. Respeto became a major behavioral dynamic upon attainment of full adolescence and adulthood, as noted in the following case of Estela León's daughter, Margarita.

Estela's physician had told her that, at 205 pounds, she was overweight and endangering her health. She and her two older daughters (both in their early twenties) had started diets and had become increasingly conscious of the need to abstain from tempting foods. During a visit to Estela's home, Margarita, her 14-year-old daughter, asked me if she might partake in the diet counseling program. She explained that at school she had trouble seeing the writing on the blackboard; her vision was blurred, and she had headaches. To overcome this, she had moved to a desk close to the front of the room. She noted, however, that perhaps she also needed a diet because she had begun to eat more than usual at school, hoping that food would take the headaches away. The main point, however, is that Margarita spoke to me rather proudly of the fact that she had "no other problems." She compared herself to the young teenagers in their apartment building, noting that she avoided them because the girls, in particular, did not know how to make boys respect them, especially during games that involved physical contact. Although she had developed good friends at school, she disliked her peers in the apartment building. These neighborhood children teased her and nicknamed her "Saint" (santa) while she described their games as an "orgy" (un relajo).

Concern about maintaining an environment that would nurture respeto led parents to focus on this behavioral dimension while placing lower priority on problems that school teachers considered more important for educational performance. This is illustrated in the case of Blanca Jiménez, a 10-year-old girl.

Blanca's teacher called her mother, Olga Jiménez, to discuss reports that Blanca was "not studying." The teacher felt that the girl's decreasing interest in her studies should be treated at a mental health center. Her problem had been brought to the attention of a counselor who had, in turn, referred Blanca and her parents to the center. At the time of this research, however, Olga had not taken her there. The mother was more preoccupied with the effects on Blanca of the family's living conditions than with her failing school record. She felt that the apartment in which they lived was "too closed in" for a youngster, especially since the manager did not allow children to play in the hallways. Moreover, Olga was deeply worried because she had heard that at Blanca's school there were a number of male students who had not been brought up to "respect" girls. Consequently, she was seriously considering sending Blanca to a boarding school where, she believed, Blanca would not only be protected but would also have more companionship. She and her husband would have to "work and sacrifice" to send the child to a "good school," which she defined as one with teachers who are concerned over boys' and girls' proper behavior toward each other. Olga had become so worried about Blanca that whenever she spoke of her, she experienced headaches and increased nervousness.

Parents reported that their sons presented a different set of problems than their daughters. Undesirable behavior for boys included rebelliousness (conducta rebelde), lack of discipline (indisciplinado), a tendency to fight (peleón), and nervousness or excitability (nervioso). The etiology of these problems was sometimes ascribed to physical dysfunction, such as weak blood and head injuries, or to heredity. At other times, it was linked to the influence of an estranged parent or a relative.

The problems described in the following excerpts offer perspectives on the parental views of the nature and management of boys' behavioral difficulties. Four years before the study, Hilda Molina, a single mother, had brought her only son, Roberto, to the United States. They lived with her sister and her sister's husband. At the time of the research, she was worried because, at age 9, Roberto was repeating the second grade. He could read neither Spanish nor English, and she had been called in to talk with school personnel who wanted to help Roberto. She wondered whether he suffered from some form of congenital retardation or whether his behavior resulted from a sharp blow on the head he had received from playmates during the first year after they arrived in Washington.

Hilda was concerned about Roberto's nervous mannerisms and his rebeldía (rebelliousness) toward her. She had taken Roberto for examinations and tests in several well-known children's health centers in the city, and he had been treated mainly for allergies. The school counselors had referred him to a local psychiatric center, but at the time of the study he was no longer in treatment at this facility.

Throughout their contacts with health centers and mental health resources, Hilda and her relatives had hoped that someone would prescribe the correct tonics and foods to fortify Roberto. The family believed that with good physical health, defined mainly as a strong "constitution" and the prevention of weak blood, he would control his rebelliousness and improve his learning.

The "excitability" of 9-year-old Fernando was described by his mother Matilde Rojas. Fernando suffered from nervousness, especially when he felt emocionado (highly excited). He also liked to shake while looking at himself in the mirror. When he began to fight with other boys, his mother decided to take him to a different school, and she moved to a new apartment building. She viewed these changes as positive steps, since he appeared in better control of his nerves, and his grades also improved. Matilde was pleased with the principal at the new school because she organized special recreational activities for the children, such as visits to the countryside. This was a welcome distraction, since otherwise the boy usually stayed in the apartment. Moreover, the mother felt that in the new building there were more desirable playmates for the child. She also considered it more secure. Indeed, she had spent many years in the other building, but after being robbed and stabbed, she decided to make the change. Her son told me that his mother still had fears, pointing out that she had installed empty cans over the windows to make noise in case someone broke into the apartment.

Matilde gave Fernando multivitamins, a nonprescription tonic, and children's aspirin, since she thought they were needed. She had taken him to the local children's hospital where he was subjected to "all of the tests." She had also gone to three different special counseling agencies, receiving recommendations that both mother and son should participate in various programs.

Matilde had contacted these agencies, but at the time of the research, she was still worried about the effect on children of the danger of her neighborhood. She sometimes dreamed of returning to her home country to live near her 32-year-old married son, but she realized this was unrealistic inasmuch as he had a wife and four children to support. Two years earlier, the son had been forced to quit his job as a bus driver because of a health problem described as a "bad aorta," which was believed to cause his blackouts and fainting spells. He had been mugged by four men in a bar, and one of the men was reported to have kicked him in the area of the heart. The son was now a fruit vendor, which gave him a very limited income for his family. Consequently, Matilde had decided to resign herself to life as it was in Washington, with all its fears. At the time of the research, however, she felt increasing optimism because of her pleasure about Fernando's new school and his apparent loss of the symptoms of "excitability."

Descriptions of the behavior problems of these elementary school age students point to several aspects of the nature and management of conflicts. Parents hope that their children will develop the ability to exercise control and containment of negative feelings. Marked differences are evident, nevertheless, in the behavioral expectations of boys and girls. Feminine ideals for the protection of sexual sanctity (woman's source of honor) call for an early insistence on conduct that will prepare girls to elicit respect and deference. The cultivation of these qualities requires training in self-containment, particularly in the presence of males. The discipline of boys, in contrast to that of girls, is much more concentrated on containing the overt expression of aggression.

Differences between the views of parents and those of school authorities about the nature and management of problems emerged in the cases of Blanca Jiménez and Roberto Molina. Their parents, like other immigrants in the study, emphasized supposed links between physical symptoms of weakness or hereditary defects and their children's behavioral problems. They hoped that their children would outgrow nervousness and deficiency in school as they attained optimal levels of physical health, measured, in particular, by "strong blood." School teachers, who had a greater concern with educational performance and achievement, frequently referred such children to community resources. Parents reported that they had taken their children to specialists such as psychologists, psychiatrists, social workers, school counselors, the children's hospital, and a neurologist. At the time of this research, some parents were using school counselors for crises but made only limited use of other agencies or mental health specialists.

Another area of marked parental preoccupation was the social quality of the neighborhood and its influence on children. There was much discussion of the undesirable aspects of various places of residence and threats of bodily harm or violence. An apparently greater concern over protecting children than was usually found in Latin American communities of origin was based on the reality that the immigrants or their friends had been the victims of a number of robberies.

Controlarse and Conflict Between Men and Women

Adults with marital problems are often expected to try as much as possible to guard against expressing negative sentiments and to keep in check feelings of hostility toward a mate. A leading source of stress between spouses is the contrast between feminine and masculine concepts of the nature and exercise of containing feelings and controlling the self. On one hand, women are expected to act as moderators in tense situations and to contain emotions such as hostility to a greater extent than men. Following cultural traditions, women's behavior is supposed to bring stability to a conjugal relationship. On the other hand, men's practicing self-control calls for governing strong feelings, such as those associated with expressing anger. Men are expected, however, to depend not only on their own control but also on the moderating influence of women. An aspect of strength in women's caracter is thus based on independent self-mastery plus energy left over to help men, while masculine self-control is to some extent dependent on women's influence.

Among women, however, these concepts of sex role relations seem in a state of change. For instance, Juana Quesada indicated that drinking in itself was not the only source of her husband Melchor's diminished control of himself and his shifting moods. She felt that he had other personal problems that required attention.

Juana and her husband expressed contrasting views about his emotional outbursts. Juana was very troubled by his frequent fits of temper, but Melchor indicated that he lost control only when he drank too much beer. Juana labeled her husband as neurotic and felt that something was the matter wth his nervous system, but Melchor insisted that alcohol was the only explanation for his frequent bouts of anger. Their disagreements were becoming a source of stress in their marriage, although they both contained their feelings somewhat, and tensions surfaced mostly during his drinking episodes. At the time of the study, Juana was increasingly concerned about Melchor's view of his problem, particularly since his marked mood shifts and irascibility were not limited to when he drank beer.

Another example was Lucía Díaz, a woman whose husband expected her to show control over his disturbed emotions. She was increasingly fearful that she would not be able to cope with her anxiety and depression. Lucía did not share her husband's view that she had to assume the major responsibility for improving their marriage by exercising control over her trouble feelings. She and her husband, Tomas, had a number of fights over money management, their relationships with relatives, and sexual incompatibility. One day, after a serious disagreement, he left her, and she felt as if the world had come to an end. When he came back after a few weeks, Lucía was happy, even though she did not like his advice upon his return. He told her, for example, that she ought to "conquer herself"--she ought to avoid "thinking" (of their troubles). (El mi dijo que me debo sobreponer, que no debo pensar.) But Lucía found it difficult to pursue this course. She sometimes wondered whether some day she would become as distraught as her mother, who had died in an "insane asylum." She consulted various physicians, who prescribed medicines to calm her, but these medicines did not relieve the sense of sorrow (pena) and emotional strain (sufrimiento moral) she felt when she realized that her marriage might end in separation. She was feeling overwhelmed by too much suffering and too much affliction (mucho sufrimiento y tanta aflicción).

During the course of the research, Lucía developed a number of organic and psychological symptoms for which she consulted several general practitioners. Some treated her physical symptoms alone, while others suggested that all her problems were psychological. These discrepant ways of dealing with her symptoms led her to doubt the power of professional medicine. She participated more in religious services and hoped that her rediscovered faith would serve as an anchor to resolve her problems. Moreover, a central preoccupation throughout this period was with the role of fate and heredity in her illness. She was losing hope in her own ability to understand and face her husband, and she was developing marked fears about the inevitability of following in her mother's footsteps.

Lucía was most distressed because she could not fulfill the cultural expectation that voluntarily controlling her feelings would resolve her marital difficulties. She could not heed her husband's advice that she avoid thinking of the problems. Shortly before this research was completed, she took a heavy overdose of aspirin. After this suicidal gesture, she continued to search for advice from lay and scientific practitioners of medicine and various religious ministers and counselors.

Discussion

The exercise of control over unpleasant or negative feelings in order to face the difficulties of the surrounding world is a neglected dynamic aspect of behavior among Latinos that should be studied intensively. The present research shows that, as Latinos and Latinas have engaged in efforts to alter their situations, they have overcome difficulties through this mechanism. Traditionally, boys and girls are expected to learn to face temptations and problems simply through controlling their disturbing feelings and thoughts. It should be noted, however, that attaining this behavioral ideal is seen as dependent, in part, on maintaining good health. A strong, healthy body is considered the foundation for the proper regulation of behavior.

In their pioneering work, Vulnerability, Coping, and Growth, Lois B. Murphy and Alice E. Moriarty show that the study of the patterns of resilience and coping styles among children offers valuable insights into children's strengths and resources. These authors underscore the need for investigation that can identify the breadth of coping efforts and strategies used by parents, children, and community representatives who are called upon to face the challenges of adaptation. They also emphasize the need to compare the struggles of children and adults in stable cultural units with those of people in settings undergoing change. Their own investigations have been conducted among children from one ecological and cultural setting, children of predominantly Nordic heritage (Murphy and Moriarty 1976). Since little information exists on the patterns of child development and growth among Latinos in the United States, who are among the growing population of new immigrants, this area should receive a high priority.

As for conjugal relationships, tension and contradictions are often resolved through mutually shared expectations about masculine and feminine forms of containment. Serious strains occur, however, when husbands and wives have different ideas about why they cannot govern their disturbed sentiments. Changing ideas of role relations between the sexes accentuate these problems. The present study highlights the importance of seeing how culture influences the use of defenses and coping from a dynamic perspective. Adults and children in the households of Latino immigrants are guided by values that give specific meaning to their behavior. We need to keep in mind that a household changes during the process of settlement; it changes along with the phases of the life cycles of its members and their stages of entry in the new setting.

Some researchers have characterized those of Latin American heritage as people who passively endure stress and tend to avoid direct interpersonal conflict (Díaz-Guerrero 1967; Holtzman et al. 1975). Latinos are said to bear disease and trouble through denial, courage, and acceptance. Studies conducted by Diaz Guerrero among people of Mexican heritage, for example, show that the passive endurance of illness and stress is considered a virtue sustained by such values as harmony, protection, dependence, formality, and cooperation. Self-sacrifice is expected from all members of the family, together with submission, dependence, politeness, courtesy, and aguante (the ability to hold up well even in the face of abuse) (Díaz-Guerrero 1967).

This fatalistic view is linked to broader orientations toward life, as noted in Julian Samora's discussion of the concepts of health and disease among people of Hispanic heritage in the southwestern United States:

> Through original sin man's nature is basically evil. The process of living one's life, then, is always difficult because hardships and sufferings are the destiny of man. The reward, if there is to be any, for living this life is to be found not on this earth, which is a temporal existence, but in an eternal existence. To obtain this reward, one must save one's immortal soul. One can do this by changing one's basically evil nature to a nature which is basically good. Such a change is brought about by following God's commandments; by subjecting one's life to His will; by a personal love for God. . . . which transcends all love (Samora 1961).

Studies of conflict resolution among people of Hispanic heritage often emphasize resignation and conformity, rather than self-control and mastery over difficult circumstances. Resignation is, however, only one of the behaviors that can result from an ideal that leads to containment and suppression of feelings. Controlarse has two complementary dimensions. Latinos can contain their feelings and either resign themselves to their unkind fate or strive to overcome stress-inducing situations. Among the immigrants in this study, there was an emphasis on sobreponerse, the ability to conquer and overcome one's disturbing feelings. The "problem cases" described here highlight conditions under which this ideal was difficult to achieve.

Future studies of child and adult socialization of members of Latino cultures in the United States should examine the modes through which they use controlarse to attain desirable goals and objectives in the family as well as in their relations to the larger society. Attention should also be given to devising ways to alter these practices constructively so as to meet the requirements of new and different social patterns, both in the places of origin and in areas of resettlement.

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CHAPTER 9

STRESS AND ILLNESS: A MULTIVARIATE ANALYSIS OF PERCEIVED RELATIONSHIPS AMONG MEXICAN-AMERICAN AND ANGLO-AMERICAN JUNIOR COLLEGE STUDENTS*

Felipe Castro and Manuel R. Miranda

The experience of stress is pervasive in industrialized societies. Situational demands and time pressures (symbolic potential stressors) as well as exposure to noxious or toxic environmental conditions (biochemical potential stressors) all contribute to an alteration of bodily homeostasis. Stress, although often a vague construct, is now considered a major etiological factor in the onset of headaches, obesity, absenteeism, illness, accident proneness, and violence, among other psychological and psychophysiological disorders (American Psychiatric Association [APA] 1980; Department of Health and Human Services [DHHS] 1980).

Certain physiological mechanisms of the stress process are well recognized. For example, the cardiovascular system is, for most persons, one of the bodily systems most reactive to threatening or noxious stimulation. Perception of threat, an activity involving higher areas of the brain, can stimulate the autonomic nervous system. This stress reaction (the fight-flight response) in turn activates the cardiovascular system via the release of glucose and epinephrine into the bloodstream, resulting in increased cardiac output (heart rate and stroke volume), increased systolic and diastolic blood pressure, and increased subjective discomfort manifested by feeling anxious and "under stress" (Guyton 1981). Prolonged excitation of the autonomic nervous system can eventually produce a variety of psychophysiological disturbances: gastrointestinal disorders (Whitehead and Bosmajian 1982), musculoskeletal disorders such as tension headache (Cohen et al. 1983), and cardiovascular disorders such as high blood pressure (James et al. 1983). Prolonged arousal of the autonomic nervous system also contributes to atherosclerosis, the pathogenic process that ultimately induces myocardial infarction, i.e., heart attack (American Heart Association [AHA] 1984; Benditt 1977; Gillum and Grant 1982; Jenkins 1976).

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From a mental health perspective, stressful life events--both major events (Holmes and Rahe 1967) and minor daily hassles (Kanner et al. 1981)--have been identified as precursors of various disorders, including obesity due to overeating when emotionally distraught (Lowe and Fisher 1983), posttraumatic stress disorder in Vietnam veterans (Foy et al. 1984), and drug addictive behaviors, including relapse after efforts to end drug use (Marlatt 1982). However, stressful life events as measured by the Social Readjustment Rating Scale (Holmes and Rahe 1967) usually account for no more than 10 percent of the variance predictive of illness onset (Rabkin and Streuning 1976).

One problem with defining a given life event a priori as having an inherent level of stress is that, based upon unique sociocultural learning experiences, a person may differ from others in his or her personal evaluation of the stress value for a given life event. The a priori assignment of life stress units to a given life event also fails to take into consideration the complex interactions that occur during the stress process (Baum et al. 1982). These interactions involve (1) the environmental event, (2) the person's perceived coping capacities in relation to that event, and (3) the contextual sociocultural conditions related to that event (Dohrenwend and Dohrenwend 1981; Stokols et al. 1983). Key to this interactive process is the necessity of considering differences across individuals in their appraisal of the disruptive impact, the "threat value" of a given life event (Askenasy et al. 1977; Cox 1978; Lazarus 1966).

Sociocultural Variations in Stress Relationship Evaluation

The person's perception of the threat value or unwanted quality of an environmental stimulus (appraisal) is considered a critical determinant in the experience of stress. However, appraisal, in turn, is a product of the person's repertoire of learning experiences and behavioral competencies (i.e., internal mediators).

Internal mediators are a class of cognitive variables: beliefs, attitudes, values, expectations, and images a person uses to interpret or give meaning to a potential stressor. Based upon exposure to a different set of sociocultural learning experiences and life philosophy, many Mexican-Americans might differ from many of their Anglo-American peers (1) in the extent to which they accept (believe in) certain stress-illness relationships and (2) in the extent to which they appraise the negative and undesirable impact of these stress-illness relationships (Mendoza 1981).

One's ethnic or sociocultural background and the learning repertoire obtained from a given sociocultural environment provide a life context from which one appraises the threat value of a given life event. For example, from an ecological perspective, the hard-driving, aggressive, time-conscious, coronary-prone individual (Type A behavior pattern) (Friedman and Rosenman 1974) may exist more frequently in cultural populations that reward aggressiveness, competition, responsibility, time consciousness, efficiency, and individualism (Margolis et al. 1983). Having incorporated such cultural values, these hyper-goal-directed individuals may appraise an event that to most people appears innocuous as a stressor. Type A persons may interpret "innocuous" events as obstacles to their competitive goal strivings.

The individual's age also provides a context for interpreting the meaning of a given life event. Younger persons, compared with older persons, may appraise certain risky events and behaviors, such as experimentation with drugs, performing dangerous stunts, or following an unhealthy lifestyle, as less threatening to self and thus less stressful.

Age may also affect one's perceived susceptibility to illness and risk of suffering from a stress-related illness. Weinstein (1982), for example, has reported that young male and female college students tend to overrate their perceived health status as being superior to that of their peers, while underestimating their risk of contracting a series of diseases. Weinstein referred to this tendency as an optimistic bias. By implication, such college students, compared with older persons, would probably exhibit a lower level of motivation to engage in preventive health behaviors. Presumably, this pattern would be most potent among students with the greatest level of optimistic bias.

Weinstein (1983) later reported that informational feedback to these students about the risk to their peers of contracting a series of diseases reduced optimistic bias about their own risk of contracting such diseases. These peer comparisons appeared to effect some healthy motivational changes among students in Weinstein's sample. However, Weinstein did not examine differential levels of optimistic bias as they may occur across gender, ethnicity, or age.

Perceived risk of susceptibility to stress-related disease, a "negative health concern," might also increase a person's motivation to reduce current stress levels in order to reduce the chances of becoming ill. In particular, if group differences by gender, age, or ethnicity exist in the level of perceived disease risk, then commensurate differences may also exist among these groups in the motivation to practice some form of stress management as indicated by the intention to reduce daily stress.

A large national health survey conducted by the National Center for Health Statistics (Department of Health and Human Services [DHHS] 1981) has indicated that clear group differences by gender, age, and educational levels do exist as measured by health behavior frequencies. This telephone survey of over 2,400 subjects aged 20 to 64 found, for example, that adults aged 20 to 34 are more likely than adults over 35 years of age to think that they get less exercise than they need. Nevertheless, members of the younger group more frequently smoked a large number of cigarettes and drank large quantities of soft drinks or alcohol.

Differences by gender have also been observed in this survey. As a group, men were found more likely than women to have no regular source of medical care, to smoke cigarettes, and to drink alcohol and coffee in large quantities. By contrast, women were more likely to worry about their health, to have physical and blood pressure checks, to take vitamins, and to brush and floss their teeth. These survey results generally suggest that younger persons, possibly because most are in good health and perhaps because of optimistic bias, may engage more often in potentially health-threatening behaviors (McCarthy 1984), since they do not perceive doing so as being stressful enough to threaten immediate health status.

Similarly, males (perhaps because they face fewer periodic health problems, e.g., obstetric-gynecologic problems) may partcipate less often than females in illness-preventive behaviors (e.g., having physical examinations and blood pressure checks) and in health-maintaining behaviors (e.g., taking vitamins). In addition, men as a group may engage more often in health-threatening behaviors, such as cigarette smoking and excessive consumption of coffee and alcohol. Males may also have a stronger optimistic bias than females about their risks of contracting an illness.

Presently, little data exist on the perceptions of stress and on the coping patterns manifest among Mexican-American males and females compared with their Anglo-American peers (Mendoza 1981). Based on exposure to somewhat different cultural life philosophies from the Mexican and the American cultures, certain differences in the sociocultural contexts of stressor appraisal would be expected between Mexican-American and Anglo-American students.

The present study examines group differences by ethnicity (Mexican-American, Anglo-American), by gender (male, female), and by age group (young adults, older adults) in the subjects' knowledge of and attitudes toward stress and in their perceived susceptibility to a major stress-related disease (cardiovascular disease). These group differences in psychological orientation toward stress-illness relationships are examined in relation to the person's intention to do something to reduce present levels of stress in order to decrease the risk of developing a stress-related disorder (cardiovascular disease).

In the present study, the cognitive variables of interest include level of factual knowledge about stress and stress management, attitudes toward stress as a potentially health-threatening process, perceived susceptibility to stress-related disease, general health motivation, motivation to reduce present levels of stress, and frequency of stress exposure and avoidance. More specifically, two questions are raised: (1) Are there significant group differences (by ethnicity, gender, or age) in these stress-related variables? (2) Are some of these variables significantly related to the motivation (the intention) to engage in stress-reducing, illness-preventing behaviors?

Method

Subjects. Subjects in this sample consisted of 314 Anglo-American students (190 females and 124 males) and 193 Mexican-American students (93 females and 100 males) aged 17 to 35. All the subjects had registered to participate in a lifestyle management project to reduce the risk of cardiovascular disease among junior college students in the Los Angeles area. This project was sponsored by the American Heart Association, Greater Los Angeles Affiliate.

Procedure and Instruments. As a part of registration in this lifestyle management project, subjects filled out a 57-item pretest questionnaire focusing on stress and health status. Specifically, the stress content involved: (1) knowledge of stress and stress management [KST], (2) attitude regarding stress as a precursor of anxiety and depression [A1], (3) attitude regarding stress as a precursor of somatic disease [A2], (4) general motivation to improve health [H1], (5) perceived health status compared with that of peers [H2], (6) perceived risk of developing coronary heart disease (CHD) before age 50 [H3], (7) how often the person had felt strong tension or anxiety during the past week [F1], (8) frequency of taking a timeout to reduce stress during the past week [F2], and (9) intention to take a regular timeout in the near future to reduce stress [I1].

The item set comprising this pretest questionnaire was generated from items contributed by community health professionals knowledgeable about risk factors for cardiovascular disease, including stress. Items were pilot tested for item difficulty, complexity, and clarity of content in a brief pilot study.

The stress knowledge score [KST] consisted of the some of four multiple-choice items (range: 0 to 4 correct). The attitude items [A1] and [A2] consisted of part a--asking about the strength of a person's belief that prolonged stress can lead to emotional or somatic disease, as evaluated on a 5-point scale from +2 (agree strongly) to -2 (disagree strongly); and part b, which inquired about the person's evaluation that the outcome of stress is very good (+2) to very bad (-2). These items were based on Ajzen and Fishbein's Theory of Reasoned Action (Ajzen and Fishbein 1980). Attitude item scores [A1] and [A2] each ranged from -4 to +4. In the stress attitude items, a score near -4 indicated that the subject strongly agreed (+2) (a) that prolonged stress "will lead me to develop a physical disease," and then evaluated very negatively (-2) (b) that "my developing a physical disease is very bad."

The items evaluating general health motivation, perceived health status, and perceived risk were scaled using a 5-point Likert scale. A 5-point Likert scale also measured the items tapping stress frequency, past frequency of taking stress timeouts, and intention to take regular timeouts in the future.

Via separate linear transformations, all items were later rescaled into a standard 0- to 100-point scale to facilitate the inspection of item differences and interscale relationships. Thus, for each scale, the observed group mean score is interpretable as a percentage of the maximum attainable score on that scale. Scale polarity was reversed for the attitude items to facilitate interpretability.

Results

A multivariate analysis of variance (MANOVA) was conducted with sex (female, male), ethnicity (Anglo-American, Mexican-American), and age group (younger: ages 17 to 21; older: ages 22 to 35) as the independent variables. The vector of dependent measures (Winer 1971) consisted of the nine criterion variables that tapped knowledge, attitude, health status, and behavior frequencies. Tables 9-1 and 9-2 show the group mean scores obtained from this MANOVA analysis, broken down by main effects (table 9-1) and by discrete groups (table 9-2). Significant main effects were observed for ethnicity—Wilkes $\lambda = 0.93$, approximate $F(9, 491) = 4.45$, $p < .001$; for sex--Wilkes $\lambda = 0.89$, approximate $F(9, 491) = 6.42$, $p < .001$; and for age—Wilkes $\lambda = 0.92$, approximate $F(9,491) = 4.52$, $p < .001$. None of the two-way interactions between these variables were significant. Following the MANOVA analysis, a Duncan's Multiple Range Test was conducted following a one-way ANOVA run on each of the eight dependent variables (Edwards 1972). This was done to identify statistically significant group mean differences per dependent measure, across each of the eight ethnic-gender-age groups. Lowercase letters identify pairs of groups that differed from each other at the $p = .05$ level (see table 9-2).

Significant Main Effects. Knowledge about stress. Significant main effects for ethnicity, sex, and age were observed in knowledge about stress as a precursor of health disorders when measured by the four-item knowledge of stress score (which was converted to a 0 to 100 scale). Table 9-1 shows the mean stress knowledge scores by ethnicity, sex, and age.

Anglo-American junior college students in this sample, compared with their Mexican-American peers, had a greater stress knowledge score--62.7 to 51.8, respectively; $F(1,499) = 25.16$, $p < .001$. A score of 50 indicates 2 of 4 items correct, while a score of 75 indicates 3 of 4 items correct (see note to table 9-1). Similarly, females knew significantly more about stress than did males--63.0 to 51.5, respectively; $F(1,499) = 25.28$, $p < .001$. Older students (aged 22 to 35) knew significantly more about stress than younger students (aged 17 to 21) did; their respective group mean stress knowledge scores were 61.1 and 53.3—$F(1,499) = 14.76$, $p < .001$. Young and old Mexican-American males had significantly lower levels of knowledge about stress compared with several other groups (see table 9-2).

Attitude toward stress. Attitude item [A1] examined the degree to which the subject believed that "being under continual stress results in feelings of anxiety, anger, or depression" (agree strongly [+2] to disagree strongly [-2]); it also examined the subject's evaluation that "my becoming anxious, angry, or depressed," is very good (+2) to very bad (-2). Attitude item [A2] examined the degree to which the subject believed that "experiencing intense and prolonged stress will lead me to develop a physical disease," and it examined the subject's evaluation that developing such a physical disease is very good (+2) to very bad (-2).

Based upon scores converted to a 0 to 100 scale and reversing polarity to facilitate interpretation, attitude scores near 100 indicated a strong appraisal that stress adversely affects one's health (a negative attitude toward stress). Scores near zero

Table 9-1. Main effects of ethnicity, sex, and age

Questionnaire item set		Ethnicity (518)		Sex (507)		Age (518)	
		Anglo-Am (318)	Mex-Am (200)	Female (283)	Male (224)	Younger (263)	Older (255)
Knowledge	[KST]	62.7	51.8***	63.0	51.5***	53.3	61.1***
Stress, emotional	[A1]	61.5	58.1	60.4	59.2	57.7	61.8
Stress, somatic	[A2]	65.0	58.4*	62.5	60.9	60.8	62.6
Health motivation	[H1]	61.2	63.1	61.2	63.0	61.5	62.7
Health status	[H2]	61.9	60.7	57.6	65.0***	62.9	59.7
CHD risk	[H3]	49.8	45.5	50.4	44.9**	42.6	52.7***
Felt intense stress	[F1]	44.6	41.9	48.1	38.4***	40.9	45.6
Took timeout	[F2]	42.3	39.7	40.1	41.9	37.5	44.5
Intend take timeout	[I1]	73.9	78.7*	78.2	74.4	73.7	78.9*

NOTE: Age groups are: Younger, ages 17 thru 21, and Older, ages 22 thru 35. The scale interpretations are: for Knowledge [KST] score is a percentage of the total correct where 0 = 0, 25 = 1, 50 = 2, 75 = 3, 100 = 4; for the Stress-emotional [A1] and for the Stress-somatic scales, in perceived adverse effects of stress, 0 = none, 25 = mild, 50 = moderate, 75 = strong, 100 = extreme; for the Health Motivation [H1] scale, 0 = absent, 25 = weak, 50 = moderate, 75 = strong, 100 = extreme; for the Health status relative to peers [H2] scale, 0 = considerably less, 25 = somewhat less, 50 = about equal, 75 = somewhat greater, 100 = considerably greater; for the CHD risk before age 50 [H3] scale, 0 = 10 percent or less, 25 = 25 percent, 50 = 50 percent, 75 = 75 percent, 100 = 90 percent or more; for the Felt intense stress [F1] and Took timeout [F2] scales in times per week, 0 = 0, 25 = 1 to 2, 50 = 3 to 4, 75 = 5 to 6, 100 = 7 or more; and for the Intend to take a timeout [I1] scale, 0 = definitely no, 25 = likely no, 50 = perhaps, 75 = likely yes, 100 = definitely yes.

*p<.05. **p<.01. ***p<.001.

Table 9-2. Scale scores for age groups across sex and ethnicity

		Anglo-American				Mexican-American			
		Female		Male		Female		Male	
		Younger (95)	Older (95)	Younger (73)	Older (51)	Younger (37)	Older (56)	Younger (53)	Older (47)
Knowledge	[KST]	$60.5^{e,l,m}$	$71.1^{a,b,c,d,e,f}$	$54.1^{c,l,p}$	$64.7^{g,h,i}$	$59.5^{d,n,o}$	$61.2^{f,j,k}$	$39.6^{a,g,j,l,n,p}$	$47.3^{b,h,k,m,o}$
Stress, emotional	[A1]	61.3	61.4	59.4	63.7	57.1	61.6	53.1	60.6
Stress, somatic	[A2]	63.0^{e}	63.2^{d}	69.3^{a}	64.0^{b}	60.5	63.8^{c}	$51.2^{a,b,c,d,e}$	59.0
Health motivation	[H1]	61.4	58.8^{a}	63.2	61.0	61.8	63.2	60.1	67.6^{a}
Health status	[H2]	57.9^{c}	57.4^{b}	$68.3^{a,b,c}$	63.7	60.1	$55.4^{a,d}$	65.6^{d}	62.2
CHD risk	[H3]	$49.2^{d,g}$	$58.2^{a,b,c,d}$	43.2^{c}	48.5^{h}	41.9^{b}	52.7^{e}	$36.8^{a,e,f,g,h}$	51.1^{f}
Felt intense stress	[F1]	45.8^{c}	51.1^{a}	41.1	40.2	45.9	50.4^{b}	$31.6^{a,b,c}$	40.4
Took timeout	[F2]	40.8	40.0	38.0	50.0^{a}	42.6	37.9	$29.7^{a,b}$	49.5^{b}
Intend take timeout	[I1]	70.8^{a}	74.7^{c}	71.6^{b}	78.4	74.3	77.7	78.3	$84.6^{a,b,c}$

NOTE: Means with common subscripts differ significantly at the .05 level. Age groups are: Younger, ages 17 thru 21; and Older, ages 22 thru 35. The scale interpretations are: for Knowledge [KST], the score is a percentage of total correct, where 0 = 0, 25 = 1, 50 = 2, 75 = 3, 100 = 4; for the Stress, emotional [A1] and Stress, somatic [A2] scales, in perceived adverse effects of stress, 0 = none, 25 = mild, 50 = moderate, 75 = strong, 100 = extreme; for the Health motivation [H1] scales, 0 = absent, 25 = weak, 50 = moderate, 75 = strong, 100 = extreme; for the Health status relative to peers [H2] scale, 0 = considerably less, 25 = somewhat less, 50 = about equal, 75 = somewhat greater, 100 = considerably greater; for the CHD risk before age 50 [H3] scale, 0 = 10 percent or less, 25 = 25 percent, 50 = 50 percent, 75 = 75 percent, 100 = 90 percent or more; for the Felt intense stress [F1] and Took timeouts [F2] scales in times per week, 0 = zero, 25 = 1 to 2, 50 = 3 to 4, 75 = 5 to 6, 100 = 7 or more; and for the Intend to take a timeout [I1] scale, 0 = definitely no, 25 = likely no, 50 = perhaps, 75 = likely yes, 100 = definitely yes.

indicated a weak appraisal that stress adversely affects health, and scores near 50 indicated a moderate appraisal that stress adversely affects health status (see note to tables 9-1 and 9-2).

No group differences were observed for the attitude item that links stress to emotional disorder. All subjects expressed a moderate to strong appraisal that stress can lead to anxiety, depression, or anger, as indicated by scale scores near 60. On the attitude item linking stress to somatic disease, Anglo-Americans had a significantly higher score than did Mexican-Americans (65.0 to 58.4, respectively; $p < .05$). This score suggests that the Anglo-American students had a moderate to high level of concern, which was significantly higher than that of their Mexican-American peers regarding the ill effects of stress.

A subanalysis of the belief (a) and evaluation (b) components of these attitude items revealed that Mexican-Americans did not differ from Anglo-Americans in having a *very strong* level of *belief* that stress can cause emotional disorder--87.49 to 87.83, respectively; F (1,499) = .09, $p > .05$. Also, these groups did not differ in having a *strong* level of *belief* that stress can cause somatic illness--75.63 to 76.23, respectively; F (1,499) = .01, $p > .05$. However, Anglo-Americans did express a *strong evaluation* that developing a somatic disorder is bad (77.51), an evaluation of the undesirability of somatic disease that was significantly greater than that rendered (64.26) by the Mexican-American subjects ($p < .001$).

Orientations to health. The health motivation item [H1] (see table 9-1) examined the degree to which subjects were typically concerned in a positive manner about their own health (i.e., their personal motivation to maintain or to improve their own health). No overall group differences were found on this item, with all groups attaining a mean score of about 60 (see table 9-1). An analysis of group means indicated that older Mexican-American males expressed a significantly higher level of health motivation than did the older Anglo-American females (67.6 to 58.8, respectively; see table 9-2).

On item [H2], "Relative to other students my age, I feel that I am: (0) = considerably less healthy . . . (100) = considerably healthier," males expressed a significantly higher level of perceived relative health status than females (65.0 to 57.6, respectively). With a score of 50 suggesting one's being "about equally healthy," both males and females exhibited an "optimistic health bias," although males exhibited a significantly greater optimistic bias. The young Anglo-American and Mexican-American males exhibited the greatest optimistic bias (68.5 and 65.6, respectively; see table 9-2).

Item [H3] examined the subjects' perceived risk of: "developing some form of heart disease before I am 50 years old: (0) = 10 percent . . . (100) = 90 percent and over." Females (50.4) reported a 50 percent risk, while males (44.9) reported a significantly lower level of perceived risk--*F* (1,499) = 8.41, *p* < .01. Also, older students (52.7) reported having an approximately 50 percent risk, while the younger students (42.6) reported having a significantly lower level of perceived risk--*F* (1,499) = 15.58, *p* < .001. A multiple groups comparison revealed that young Mexican-American males were significantly different from several other groups in their lower perceived risk of developing premature Coronary Heart Disease (CHD) (see table 9-2).

Behavioral frequencies and intentions. Subjects were asked to remember how many times during the past week they had experienced intense stress; they were also asked how frequently they took a timeout to reduce stress. For item [F1], I "felt strong tension and anxiety for several minutes," females reported a higher mean frequency of tension and anxiety than males--48.1 to 38.4, respectively; *F* (1,499) = 10.95, *p*<.001. However, regarding the action of taking "a timeout for 10 minutes or more to reduce stress" [F2], no group differences were observed; all groups scored around 40 on this 0 to 100 scale. Scores near 40 translate into an absolute frequency of about 3 to 4 times per week (see table 9-1). Here also, young Mexican-American males were noticeably different from a few other groups in their reported lower number of intense stress episodes and in their reported lower number of stress-reducing timeouts (see table 9-2).

Finally, regarding their intention during the next 6 weeks to "deliberately take a timeout to reduce my level of stress," Mexican-Americans reported a significantly stronger intention to do so--78.7 to 73.9, respectively; *F* (1,499) = 6.17, *p* < .05. Also, older students reported a significantly stronger intention to do so than younger students--78.9 to 73.7, respectively; *F* (1,499) = 5.30, *p* < .05. The older Mexican-American males (84.6) expressed a "definite" intention to do so, which was significantly greater than the expressed "likely" intention of younger and older Anglo-American females, and of younger Anglo-American males (70.8, 74.7, and 71.6 respectively; see table 9-2).

Summary of Group Differences. Table 9-2 shows group mean scores on these 0 to 100 scales broken down for each of the eight ethnic-gender-age groups. Among the noteworthy relationships, older Anglo-American females were most knowledgeable about stress (71.1), whereas younger Mexican-American males were the least knowledgeable (39.6). The highest self-reported health motivation was observed for older Mexican-American males

(67.6) and the lowest, for older Anglo-American females (58.8), although the mean score for all groups was near 60 (see footnote to table 9-2).

Perceived health status was above average for all groups, with younger Anglo-American (68.5) and Mexican-American (65.6) males expressing the most optimistic health bias. Thus, young males of both ethnic groups appeared to have the highest level of optimistic bias.

Regarding perceived risk of developing premature CHD [H3], older Anglo-American females (58.2) exhibited the highest self-reported risk, whereas younger Mexican-American males reported the lowest one (36.8). The same pattern was exhibited for episodes of intense stress reported during the preceding week. Older Anglo-American females (51.1) reported a greater frequency of stressful episodes compared with younger Mexican-American males (31.6). Older Anglo-American males reported taking the most stress-reducing timeouts (50.0), and younger Mexican-American males reported the lowest frequency value (29.7). Finally, for intention to take stress-reducing timeouts, all groups expressed a "likely yes" response (scores above 70), with older Mexican-American males expressing the greatest intention to do so (84.6).

Predictors of Intention to Reduce Stress. A stepwise multiple regression was conducted to identify, across the entire sample, the significant predictors of the intention deliberately to take a stress-reducing timeout. Intention to reduce stress [I1] was best predicted by prior frequency of taking restful timeouts [F2] ($b = .28$) and by health motivation [H1] ($b = .16$). Other variables significantly associated with this intention were frequency of intense stressful episodes during the past week [F1] (inversely related, $b = -.09$); knowledge about stress [KST] (inversely related $b = -.08$); and perceived CHD risk [H3] ($b = .07$). The multiple regression coefficient (R) was .47, indicating that a linear combination of these variables accounted for 22 percent of the variance--F (5,512) = 28.59, $p < .001$.

Discussion

Significant effects of ethnicity, sex, and age were examined in a sample of junior college students for a series of items that examined (1) knowledge about stress, (2) attitudes about stress, (3) personal health orientation, (4) behavioral frequencies on exposure to stress and relaxation, and (5) intention to take action to reduce stress.

Ethnic Effects. Anglo-Americans, compared with their Mexican-American peers, knew more about stress and felt more strongly that stress can impair health, particularly as this related to physical concerns. Yet Mexican-Americans reported a greater intention to take a stress-reducing timeout in daily routines. These results--in spite of the absence of ethnic differences in perceived health risk, health motivation, and frequency of intense stressful episodes--suggest that ethnic differences in sensitivity to stress and its effects may exist for these students. Without suggesting that Mexican-American students, relative to Anglos, are less motivated to confront the stressful situations required in achieving success, it may be that, by way of subjective life orientation, most of these Mexican-American subjects intend to maintain a lifestyle low in stress.

Group differences on knowledge of stress and its potential effects on physical health may reflect cultural differences in perceptions of the price one pays for high achievement. The Anglo culture's intense focus on individual success may precipitate a keen interest in obtaining factual knowledge on the relationship between stress (particularly in the workplace) and general health. This concern with stress might be evident in the more negative appraisal (undesirability) of developing a stress-related illness reported by the Anglo-American subjects compared with the Mexican-American subjects.

By contrast, the Mexican-American culture's tendency to emphasize a balance between individual accomplishment and interpersonal satisfaction (e.g., family life, social support activities) may result in a reduced emphasis on obtaining high levels of knowledge about stress. For many Mexican-Americans, lifestyle may be guided by a general dictum that one should seek frequent opportunities to relax and enjoy life. One should not, however, dismiss the possibility that these ethnic differences in orientation to stress are related in part to differences among members of these two groups in their level of exposure to health information. Previous studies have demonstrated significant differences between Anglos and Mexican-Americans in terms of general knowledge about health and mental health problems and the resources available to resolve these problems. More often than not, Anglos have been found to be more knowledgeable.

Gender Effects. A pattern of greater health concern among females compared with males was observed, corroborating the finding of the National Health Survey (DHHS 1981). The females of this sample, compared with males, knew more about stress, reported more tension experiences during the past week, and perceived themselves to be at greater risk of CHD, despite the fact that premenopausal females are at a considerably lower

CHD risk than males (Blackburn 1980). This latter finding supplements data indicating that males are more likely than females to see themselves as healthier than their peers. These data also corroborate the findings of Weinstein (1982, 1983) that college students tend to express an "optimistic bias," and the data from the present study provide additional evidence that males tend to exhibit a significantly greater optimistic health bias than do females.

Females may have a greater sensitivity to stress and its health effects than males as a result of differential expectations related to sex roles. Whereas it is hypothesized that Anglos are more sensitive to stress and its consequences because of their high achievement orientation, it can also be suggested that females (regardless of ethnicity) are given the role of safeguarding their family's health and well-being. In addition, because females generally experience a higher frequency of periodic somatic/gynecologic symptoms related to the menstrual cycle, concern for bodily function may become more salient for most females than for most males. This differential pattern of attention to bodily symptomatology and of sex role expectations may motivate most females, compared with most males, to maintain higher levels of health knowledge and concern. This may be particularly true in relation to a female's occupation and her family, areas where she may seek to identify and correct unhealthy behavioral patterns.

Age Effects. The frequency of most diseases covaries more with age than with any other variable. Thus, age must always be considered in epidemiological studies (MacMahon and Pugh 1970). In the present study, as would generally be expected, older students (aged 22 to 35) knew more about stress than did the younger students (aged 17 to 21). Also expected was the finding that older students perceived themselves as being at greater risk of CHD than did the younger students. Older students also expressed a greater intention to take stress-reducing timeouts.

A greater intention to take stress-reducing timeouts among older subjects might be the result of natural metabolic changes occurring with aging, since energy to act gradually declines with age. This greater intention to take timeouts may also be due to older persons' exhibiting increased discretion in their investment of energy in daily activities. Conversely, younger individuals may see themselves as healthier, with greater energy reserves and bodily resilience, and thus more able to endure the bodily assaults imposed by daily stressors or by self-imposed stressors (e.g., drugs, prolonged arousal, lack of rest and relaxation).

This greater motivation to manage stress observed among older students occurred despite the absence of age-group differences in attitude toward stress as a precursor of impaired health and mental health. The intention of older students to take a timeout also occurred in the absence of age-group differences in self-reports of amount of stress experienced, in health motivation, and in past behavioral frequencies at which restful timeouts were actually taken.

An inspection of all variables by age (see table 9-1) indicates a trend toward a greater concern among the older subjects that stress, as one aspect of an unhealthy lifestyle, increases the risk of illness, including cardiovascular disease. As one grows older, the possibility of encountering health-threatening situations increases, as does one's vulnerability to such situations. Confrontation with one's mortality would seemingly serve as a stimulus to obtaining additional knowledge about stress and its health consequences. This motivational rationale would tend to explain the greater knowledge about stress and the higher perceived CHD risk appraisals exhibited by the "older" subjects relative to the younger ones. "Older" subjects also had higher scores in the attitudes toward stress scales [A1 and A2], on the health motivation scale, and on the scales of self-reported stress frequency and frequency of timeouts taken--patterns consistent with this explanation, although these trends did not reach statistical significance. Perhaps such trends would become significantly manifest in a sample of subjects older than 35.

Interpretations, Conclusions, and Recommendations. The most noteworthy finding of this study is that there are significant differences by ethnicity, gender, and age among junior college students in their perceptions of certain stress-illness relationships. For each of the three independent variables of interest (ethnicity, gender, and age), an explanation was offered to aid interpretation of the observed group differences in terms of a person's motivation (or need) to acquire a greater understanding of the relationship between stress and illness. Of particular interest to the authors are the ethnic group differences in knowledge of stress, attitudes toward stress, and behavioral intention to reduce stress. Anglo-Americans may have acquired more knowledge about stress than Mexican-Americans because of their greater achievement orientation. This interpretation suggests that Anglo-Americans may rate the onset of stress-related illness and disease as much more undesirable than Mexican-Americans because illness interferes with the attainment of achievement goals. Thus, stress-related illness may be appraised as a greater threat to personal well-being since, for Anglo-Americans compared with Mexican-Americans, well-being is appraised within the context of high-achievement lifestyle.

Nevertheless, and paradoxically, the Mexican-Americans in this study expressed a greater intention to take stress-reducing timeouts than did their Anglo peers, despite having less factual knowledge of stress-illness relationships as measured by the stress knowledge items. Here a difference in life philosophy apart from knowledge about stress-illness relationships may be operating. It may be postulated that these groups' intentions to take stress-reducing timeouts may be motivated by entirely different value orientations: for Anglo-Americans, by the desire to avoid illness and increase goal attainment; for Mexican-Americans, by the desire to enjoy life and the time spent with family and friends.

Health planners are greatly concerned about the continuing discrepancy between the general health status of ethnic group members in this country and that of the general Anglo reference population. If a lack of adequate factual information about risks to health among minority persons lay at the root of that discrepancy, then the development of educational programs would improve their health status. Unfortunately, we still know very little about what health risks specifically affect the major ethnic groups of this country; thus, we cannot develop clear and relevant educational programs and health recommendations that are specific to and culturally congruent with the dominant value orientations of a given ethnic group. Moreover, health education programs that fail to incorporate a motivational component encouraging the acquisition of more information and compliance with health recommendations would produce minimal health gains at best.

Data from the present study suggest that important ethnicity-gender-age group differences in the perception of stress as it may effect illness, in value orientations toward stress, and in the level of concern over stress as it may affect one's health. Future research and health planning should consider the psychology of differences in orientation toward stress and in health motivation that exists between various ethnic-gender-age groups (as reflected, for example, between the most different groups in the present study--older Anglo-American females and younger Mexican-American males). How would a meaningful and successful health promotion/stress management program differ in its content to appeal to the latter group compared with the former?

Regarding the importance of ethnicity in health promotion and planning, a meaningful way to motivate a group of individuals to increase knowledge of and interest in personal health improvement is to personalize the intervention. Providing Mexican-Americans with realistic and personally meaningful information about their risk of developing a given stress-related disorder and with meaningful ways to reduce this risk would likely increase their health motivation and sense of well-being. To have a greater promise of success, programs would need to consider the modal value orientations of various Mexican-Americans who differ in level of acculturation and generation. Such programs would also need to incorporate the concepts of "personalismo" and "familism" and to consider sociocultural barriers that may dampen motivation even among those who are indeed concerned with improving their health status.

As a general example, the current campaign in black communities with high blood pressure and its negative consequences for blacks and their loved ones represents the type of persuasive, believable, and motivationally urgent communication that would be effective for the major health problems that affect Mexican-Americans. Again, however, the lack of detailed knowledge and empirical data on which Mexican-Americans are at highest risk for a given health disorder and on optimal ways to improve health and well-being, given the available resources, represents a serious obstacle to initiating such programs.

Data from the present study, although based on a limited subject sample, provide some initial information on how health planners might personalize an appeal to encourage stress reduction, depending upon the identity and modal value orientations of a given ethnic-gender-age group. Other studies of this type are needed with various other groups of U.S. Hispanics to understand better their particular psychological orientation toward stress, illness, and coping. Further study is necessary on the stress-illness views of Mexican-Americans and other Hispanics in order to reach and motivate them better and to develop successful interventions to guide directed behavior change for stress-illness risk reduction in various Hispanic populations.

The current Hispanic Health and Nutrition Examination Study (H-HANES) being conducted by the National Center for Health Statistics of the Public Health Service will greatly assist in efforts toward designing and implementing programs of the nature recommended here. We await the information from the H-HANES study while encouraging other continuing, smaller scale studies on the stress-illness relationships among various Hispanics (Cervantes and Castro 1985). Other such studies might elaborate further on some of the results reported by the present study on the stress-illness perceptions observed among junior college students.

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CHAPTER 10

STRESS AND CHILD ABUSE IN THE HISPANIC COMMUNITY: A CLINICAL PROFILE

José Navarro and Manuel R. Miranda

Introduction

The problem of child abuse can easily be equated with the "iceberg" phenomenon; reported cases account for the visible tip but fail to include the unidentified cases not attracting the attention of authorities or social science researchers. Helfer (1975) estimated that in 1973 the national rate of reported child abuse was approximately 350 per million population. This rate yielded a figure of more than 70,000 reported incidents for that year. Similarly, DeFrancis and Luckt (1974) have estimated that approximately 10,000 children are severely battered yearly, with an additional 50,000 to 75,000 children experiencing some form of sexual abuse. It is the considered opinion of others (e.g., Gil and Noble 1969) however, that the probable limits of physical abuse of children were considerably higher than the overall estimates presented by DeFrancis and Luckt.

While child abuse remains in general a poorly understood phenomenon, information on its nature and incidence in the nation's various ethnic minority communities remains even more obscure. The experience of child abuse in the Hispanic community is particularly lacking insights on its origins and effects. Life event stresses and their deleterious effect upon parents trying to cope with their children's developmental needs have received minimal attention in the mental health literature. In addition, the availability of naturalistic support networks (or their lack) in moderating (or stimulating) abusive parent-child interactions has not been addressed by those conducting research in this area. The inability to develop any meaningful intervention strategies because of this information deficit contributes significantly to the perpetuation of barriers to social services needed by the Hispanic community. Previous research studies (Miranda and Kitano 1976) have clearly demonstrated the lack of effective mental health intervention strategies for Spanish-speaking clients because of the absence of well-planned, data-oriented investigations. If these barriers are to be removed, studies must be undertaken.

Child Abuse in Terms of Culture and Social Class

The Texas Migrant Council (1979) developed a series of guidelines in defining child abuse as it related to Mexican-American migrants throughout the Southwest. Most significant among these statements was the following: "Differing norms and values of professional disciplines, cultural or ethnic groups, or socioeconomic classes come into play, depending on the identity of the observer or potential reporter as well as that of the suspected perpetrator of abuse" (p. 10). The authors of the report stated that although there was general agreement about behaviors that were obviously negative (e.g., physical damage), there were many "gray" areas related to punishment and discipline on which agreement did not exist. This situation was particularly true in circumstances where ethnic groups had varying ideas about what was or was not acceptable. Consequently, the problem of the lack of a universally accepted definition of child abuse is compounded by the existence of a number of culturally determined attitudes and values concerning child rearing.

The question may be asked, then, If cultural values influence child-rearing practices, to what extent do stress and culturally laden coping styles affect the incidence of child abuse in a community? Gil (1970) suggested that high-stress factors such as poverty, discrimination, poor education, and deprivation are all contributing factors to child abuse and that failure to consider the necessity of reducing these stressful life events will only perpetuate (as well as increase) the incidence of child abuse. Giovanni and Billingsley (1970), in a study of child-rearing practices and their relation to neglect among poor families (including the Spanish speaking) in rural areas, found that more stress factors were evident among abusive mothers (e.g., marital discord, poverty, single-parent families, big families) than among nonabusive, low-income mothers. The low-income neglectful parent is usually under greater environmental and situational stress and has fewer personal resources, support networks, and effective coping styles in reducing these high stress loadings.

Kearns (1970) did a study to determine whether values related to child-rearing practices differed among three lower-class cultures--Papago Indians, Anglos, and Mexican-Americans. The results demonstrated that Mexican-American child-rearing practices continue to be strictly influenced, for the most part, by traditional values and socialization practices. Traditional values appeared considerably weaker within the Anglo group. The perpetuation of traditional coping styles in resolving child-rearing problems that occur in non-traditional settings (highly urbanized locales) may precipitate the level of stressful tension resulting in child abuse.

To prevent child abuse, one must recognize that there is an interactive system in which parents and children--in relation to their sociocultural environment--attempt to develop a system of interpersonal coping styles that maximize the fulfillment of individual and familial needs. In those cases where sociocultural factors impede or prevent the meeting of the child's developmental needs, or the parent's sense of competence, the disruption of this interpersonal coping system may lead to child abuse. The need to understand this complex relationship better requires the development of research efforts in this area.

Purposes of the Research. The major objectives of the current study were as follows:

1. To develop comparisons between the current sample population and those reported in previous studies;

2. To determine whether variables frequently cited in previous research studies (e.g., stress, lack of social support) are also specific to child abuse incidents in the Hispanic community; and

3. To develop clinical insights into the process of child abuse among Hispanic families.

Methodology

The case study approach was used to provide a careful and thorough examination of factors that might be precipitating child abuse among persons of Mexican and Mexican-American heritage. Detailed demographic and sociological data, such as income, sex, marital status, place of birth, occupation, language spoken, and length of time lived in Los Angeles and in the United States, were collected for each case. In addition, the variables of intergenerational influences and selected stress factors (i.e., social isolation, personality deficits, environmental handicaps) were examined in terms of their correlation with child abuse incidents. A guided interview format was developed for gathering the necessary data.

When possible, interviews were taped with an audiocassette tape recorder. Based on the researchers' therapeutic involvement with most of the subjects interviewed, many of the sought-after data were already available in existing records. Indirectly, this provided a quasi-longitudinal perspective to the study. For those subjects not previously seen in a therapeutic relationship, the necessary information was gathered through using a nondirective interviewing style. This approach provided the opportunity of obtaining insights into hidden or underlying motivations, unacknowledged attitudes, personal hopes, fears, inadequacies, and stressful conflicts that may have been the basis for the abusive behavior. In addition to using primary data sources, the researchers conducted a systematic search to gather pertinent materials from secondary sources--for example, court reports, social agency records, letters, and referral forms.

Population. The sample consisted of a total of 30 individuals of either Mexican [N=16] or Mexican-American [N=14] descent identified as child abusers. All 30 individuals were presently in treatment or were scheduled to undergo treatment at an East Los Angeles Community Mental Health Center—either voluntarily or on court order. At the time of the study, 19 cases had officially been initiated and were receiving services. Twenty-one additional cases served between the years 1975 and 1978 were selected from the closed files. Of these, 11 were chosen to complete a sample of 30 cases.

Various levels of assimilation, education, and socioeconomic status were represented within the population. Geographically, all 30 subjects resided in the general East Los Angeles area. This area is characterized as a predominantly low-income Hispanic community where more than 85 percent of the residents are Spanish-surnamed individuals. The total population of East Los Angeles in 1970 was 156,237, contained in 23 census tracts and 22.7 square miles. According to detailed statistics, the area had 45,706 households, each with an average of 3.9 persons, and a population density of 6,940 persons per square mile.

The basic criteria for determining which cases would be included were as follows: (a) cases must have been referred to the center from agencies mandated to investigate reports of child abuse by the State of California, and (b) the amount of information in the case file had to be sufficient for and relevant to this study.

Data Analysis

Demographic Data. Among the Mexican-American respondents, 5 were male (36 percent) and 9 were female (64 percent). Among Mexican respondents, 7 were male (44 percent) and 9 were female (56 percent). In terms of age, the Mexican respondents ranged from 20 to 50 years of age, with the average age of 29.6 years. The Mexican-American respondents were from 18 to 50 years of age, with an average age of 29.9 years. The largest single group of respondents fell into the 21- to 29-year-old category [N=14]; the next largest group was between 30 and 39 years old.

In terms of marital status, none of the Mexican respondents identified themselves as widows or widowers; 8 (50 percent) were married; 1 (6.3 percent) was single; 1 (6.3 percent) was divorced; 2 (12.5 percent) reported being separated; and 4 (25 percent) claimed common-law marriages. Among the Mexican-Americans, 1 (7.1 percent) of the respondents was listed as widowed; 5 (35.7 percent) were married; 2 (14.3 percent) were single; 2 (14.3 percent) were divorced; 4 (28.6 percent) were separated; and none were listed as having any common-law unions.

Thirteen (92.7 percent) of the Mexican-American respondents indicated they had attended some school; 1 (7.1 percent) of these respondents had attended grammar school only, while 9 (64.3 percent) attended some high school and 3 (21.4 percent) were high school graduates. Among the Mexican respondents, although 15 (93.7 percent) listed having attended school, none was a high school graduate. Overall, more than 50 percent of the entire sample had had some high school.

Linguistically, 100 percent of the Mexican-American respondents preferred to speak English as their primary language. Twelve (75 percent) of the Mexican respondents preferred to speak Spanish as their primary language, while another 4 (25 percent) preferred speaking English. None of the Mexican-American sample, although coming from Mexican parents who primarily spoke Spanish, chose to speak Spanish.

In terms of family size, the number of children each subject's household was distributed as follows: 2 (14.3 percent) of the Mexican-American subjects had 1 child; 9 (57.1 percent) had 2 children; 3 (21.4 percent) had 3 children; and 1 (7.1 percent) had 6 children. Of the Mexican households, there were 2 (12.5 percent) with 1 child; 6 (37.5 percent) had 2 children; 4 (25 percent) had 3 children; 2 (12.5 percent) had 4 children; 1 (6.3 percent) had 5 children; and 1 (6.3 percent) had 6 children. Generally, the family size was small, with more than 3 children the exception.

Employment Status. Regarding the job type held at the time of initial contact, 8 (50 percent) of the Mexican subjects were unskilled workers; 6 (37.5 percent) were semiskilled; and only 2 (12.5 percent) were listed as skilled workers. Six (42.8 percent) of the Mexican-American respondents were listed as unskilled workers, while 7 (50 percent) of the group were in the semiskilled category. One Mexican-American respondent did not provide any information on this item. The data revealed a slightly higher percentage of Mexicans than of Mexican-Americans in the skilled job category.

Income of Families. Of the Mexican-American respondents, 1 reported a combined yearly income for his wife and himself of under $2,000; 5 reported a yearly income between $2,001 and $4,000; 4 respondents reported incomes in the $4,001 to $6,000 range; 1 was listed in the $6,001 to $8,000 range; and 1 was in the income category of more than $10,001. As for the Mexican respondents, 4 earned between $2,000 and $4,000 per year; 7 respondents earned between $4,001 and $6,000; and 3 earned between $8,001 and $10,000 per year. Comparing the two groups revealed that the Mexican group had a higher average income than did the Mexican-American group ($5,092, vs. $4,625, respectively). There were only 2 respondents of the Mexican-American group who were above the federally established poverty income level of $6,700 a year for a family of four.

Analysis of Questionnaire Items

Parental Relationship of Child Abusers. Regarding the question about childhood relationships with parents, only four respondents indicated having had a "happy and memorable" relationship with their parents. Eleven respondents reported an "unhappy" childhood, and six others recalled their experiences as "confused and complex." Eight participants avoided giving a response, claiming that childhood was "not too clear in [their] memory."

Male respondents were much more likely to indicate having had an unhappy relationship with parents than were female respondents. Female respondents tended to reflect either an unclear memory of their relationship with their parents or a confused and complex relationship. Perhaps the most significant issue in this comparison was the fact that both males and females reflected an extremely low rate of agreement when asked if their relationship with their parents was "happy and memorable."

Regarding what parents expected from their children, 25 indicated that their parents had demanded "strict, unquestioned obedience to every parental command." Only 1 respondent presented his parents as having paired demands for strict obedience with an explanation of why the action was ordered. One resondent indicated that his parents expected little or no conformity to their commands, exhibiting a laissez-faire attitude. Two respondents replied that their parents had had varying expectations of obedience, depending upon their mood at the time of the order.

Expectations of Child Abusers About Children. Table 10-1 represents the data collected about the child abusers' expectations

Table 10-1. Expectations of children by respondents

Parental expectation	Total sample (N = 30)		Mexican (N = 16)		Mexican-American (N = 14)	
To give complete love and attention	14	46.6%	10	62.4%	4	28.6%
To give love and affection earned	3	10.0	1	6.3	2	14.3
To act like an adult	12	40.0	5	31.3	7	50.0
To earn love and affection from the respondent	—	—	—	—	-	—
Not reported	1	3.4	–	–	1	7.1
Total	30	100.0%	16	100.0%	14	100.0%

of their children. Fourteen respondents reported expecting the child "to give complete love and affection"; 3 respondents expected their children to give them earned love and affection; and 12 respondents expected their children to act like adults. Mexican parents expected a high degree of affection from their children compared to Mexican-Americans, who tended to expect their children to act like miniature adults.

Explanations for Injury of the Abused Child. As illustrated in table 10-2, two respondents attributed the injuries of the abused child to a fall; 12 respondents stated that the child misbehaved, thus justifying the use of corporal punishment; 5 respondents claimed that the child had lied about the respondents' having been responsible for the abuse; and 11 respondents denied that the child was actually physically injured or abused. A comparison of both groups showed that the Mexican-American group abused their children for misbehavior three times as often as did the Mexican group (Mexican-American = 9; Mexican = 3). The Mexican group, however, tended to deny the existence of any abuse three times more frequently than the Mexican-American group (N=12 and N=14, respectively).

Table 10-2. Explanation for injury of the abused child

Explanation for injury	Total sample (N = 30)		Mexican (N = 16)		Mexican-American (N = 14)	
The child fell	2	6.7%	1	6.3%	1	7.1%
The child had misbehaved so was punished	12	40.0	3	18.7	9	64.4
The child lied about the respondent's having caused the injuries	5	16.7	4	25.0	1	7.1
Respondent denied that the child was abused	11	36.6	8	50.0	3	21.4
Total	30	100.0%	16	100.0%	14	100.0%

Relations of Abusers with Relatives. The questionnaire item on relations with relatives depicted in table 10-3 found one respondent describing them as close, while 19 described the relationship as strained. Two respondents described the association as supportive, while 7 reported no relationship with their relatives. In terms of group comparisons, the fact extended regardless of group membership. It tends to support the perception reflected in the current literature that child-abusing adults often experienced a high degree of alienation.

Incidents Preceding Child Abuse. The question was posed to explore what personal circumstances the respondent had experienced prior to the alleged abuse incident (see table 10-4). Five reported having lost their jobs prior to the incident; seven reported loss of a love object; and one respondent reported having been in the hospital before the incident. Seven respondents did not recall any specific personal circumstances prior to the alleged incident of abuse. While a comparison of the two groups tends to reflect a strong similarity in terms of negative experiences preceding the child abuse incident, a significantly larger portion of the Mexican group [N=6 vs. N=1] could not recall any preceding negative experience that might explain the incident.

Table 10-3. Relationship of respondents with relatives as described by the respondent

Relationship	Total sample (N = 30)		Mexican (N = 16)		Mexican-American (N = 14)	
Close	1	3.3%	1	6.3%	—	—
Strained	19	63.4	9	56.2	10	71.4%
Supportive	2	6.7	--	—	2	14.3
Nonexistent	7	23.3	5	31.2	2	14.3
Not reported	1	3.3	1	6.3	—	—
Total	30	100.0%	16	100.0%	14	100.0%

Table 10-4. Circumstances of the respondent prior to the alleged abusive incident

Circumstances	Total sample (N = 30)		Mexican (N = 16)		Mexican-American (N = 14)	
Criminal conviction	10	33.3%	6	37.5%	4	28.6%
Loss of job	5	16.7	1	6.3	4	28.6
Loss of love object	7	23.35	3	18.7	4	28.6
Hospitalization	1	3.3	--	—	1	7.1
None recalled	7	23.35	6	37.5	1	7.1
Total	30	100.0%	16	100.0%	14	100.0%

Conditions Under Which Respondent Was Involved in Psychotherapy. Only one respondent involved himself in therapy voluntarily. Eleven others were involved somewhat voluntarily, based on a recommendation made by a significant other person. Eighteen respondents had been ordered by the court to become involved in a therapy program (see table 10-5). When an intragroup comparison was made of the data in table 10-2, it showed that more Mexican-American respondents [N=8] than Mexican respondents [N=3] had been encouraged to become involved in a therapy program. Obviously, some persuasion was required to induce the respondents to seek help with a problem many evidently rejected or failed to recognize.

Table 10-5. Conditions under which the respondent was involved in psychotherapy

Conditions for psychotherapy	Total sample (N = 30)		Mexican (N = 16)		Mexican-American (N = 14)	
Voluntary	1	3.3%	--	--	1	7.1%
Voluntary based on recommendation of a significant person	11	36.7	3	18.7	8	57.2
Involuntary (court ordered)	18	60.0	13	81.3	5	35.7
Total	30	100.0%	16	100.0%	14	100.0%

Analysis of Selected Case Histories: Interaction Among Stress, Coping, and Treatment Process

The following case histories were abstracted from the 30 Hispanic cases reviewed in the current study. These four case histories were selected to provide clinical illustrations of the forms of child abuse most prevalent in the Hispanic community.

It should be kept in mind that these four case histories do not represent perfect examples of how to treat Hispanic child abuse cases. It was the researchers' opinion that the best illustrations would be those containing specific elements and experiences that would seem to stimulate thinking as well as provoke reflection on the appropriate application of various types of intervention strategies.

The "A" Case: Social Isolation. Mrs. A., an 18-year-old Mexican mother, was referred for legal action by officers of the Los Angeles County Sheriff's Department in October of 1977. They alleged that her 4-month-old infant, who normally resided in the mother's home, had been struck on the left leg by Mrs. A. The action required the infant's hospitalization for a fractured thigh bone. Preceding this incident, the child had been bruised on her rib cage by a blow administered by the mother, according to the officers.

A detention hearing was held the same month, at which time the child was ordered detained in protective custody. The matter was continued 1 month by the judge for a hearing to determine further facts and for an investigation and evaluation of the parents' home.

Eventually, the Welfare Department recommended that the child be released to her paternal aunt and uncle because of the danger of leaving her in the care of her mother, who was determined to be extremely incapable of coping with the adverse conditions surrounding her life. It was hoped that the home situation would improve as the mother received court-ordered therapy.

At the court hearing, Mrs. A. admitted she had caused the injuries. She gave the excuse that she was left alone every day with the infant and an older daughter. Because she was isolated with the responsibility of caring for two young children, she had become frustrated and irritated and took her anger out on the irritable , crying child. The mother stated that she wanted to do everything possible to remedy the situation so that her child could be returned to her without being further endangered. Mrs. A. was willing to cooperate in any treatment plan that was determined. She also agreed with the recommendation that the infant should remain in the home of the paternal aunt and uncle until the baby could be returned home safely.

Mr. A., the 21-year-old Mexican father of the child, testified that he was unaware of the degree of isolation his wife felt until after their infant daughter had been taken into custody. While in treatment, he said he wanted to do everything possible to make things easier for his young wife and to provide a better home environment for his children. He had indicated during the court hearing that he, also, would cooperate with the treatment plan and would involve himself as much as possible in the care of his children, something he admitted not doing before the abuse incident.

Through family therapy, the aunt and uncle stated that they, too, had been unaware of the degree of isolation Mrs. A. had felt. This was aside from the fact that Mr. and Mrs. A. resided in the same home with the maternal aunt and uncle, who were also very young, both 24 years old. The investigation determined further that Mrs. A. had no friends in the neighborhood, that she was a rather recent arrival from Mexico, and that she had not yet established meaningful relationships with other young neighboring parents.

Isolation, aggravated by her inexperience with urban city life, greatly contributed to Mrs. A.'s difficulties. In addition, her husband's strong needs for psychological control tended to intimidate her. Relatives generally lived too far away for her to visit them easily by bus. With an increasing sense of alienation, Mrs. A. found herself overburdened with the care of her two children. This isolation led her to become irritated with the crying infant.

Other information provided by the paternal uncle and aunt, to whom the child had been temporarily given, was the belief that Mrs. A. was a "good" mother in general but that she was young and needed guidance on how to provide adequate child care. It was also noted that the mother had previously requested counseling from the paternal aunt. The aunt, however, felt that the parents would be better off obtaining professional counseling. She added that she felt capable of instructing the parents on adequate baby and child care but that their interpersonal problems required extrafamilial intervention.

An analysis of the background data indicated that both Mr. and Mrs. A. had several relatives in the Los Angeles area, as well as family in Mexico. Mr. A., especially, appeared to be quite close to his family in the United States and maintained frequent contacts with them. Both had obtained some education in Mexico, with Mr. A. completing the eighth grade and Mrs. A., the sixth. Mrs. A. had never worked outside the home, whereas Mr. A. was employed in a byproducts company, earning approximately $450 per month. Prior to his current employment, he had worked in the agricultural fields, both in the United States and in Mexico. Since his earnings were very limited, Mrs. A. planned to begin working at some point in the future but did not want to do so until both children were old enough to be in grammar school or nursery school.

Aside from the child abuse incident, there was no indication of any criminal history for either parent or of any previous difficulties in family functioning, nor were there any indications of previous health problems, either for the child or the parents.

Case progress was considered to be above average because of both parents' open willingness to participate in individual as well as family therapy. They were both gradually moved into a group of Spanish-speaking parents concerned with child abuse problems. Both parents became active contributors to group discussions in their native Spanish language, accepting a strong role in confronting the more denying and evasive parents.

As a result of the child abuse incident, coupled with their therapeutic expriences, the parents became increasingly aware of the need to take definite steps toward improving their home situation before the return of their infant daughter. Mr. A. began to take an immediate active role in the care of his older child, as well as attempting to involve his wife in more outside activities. Upon completion of his work day, he would accompany his wife to the movies or to visit relatives.

Through increased self-awareness, plus improvement of their marital relationship, the parents moved from brief supervised visits with their infant to full weekend responsibilities. Eventually, the parents were granted full-time responsibility for the baby with a 6-month period of court supervision. Continued progress led to an official closing of the case by the courts and referral back to the Department of Social Services for ongoing periodic followup.

The "B" Case: Intercultural Conflict. Mr. B., a 35-year-old Mexican stepfather, was referred for legal action in 1978 by staff of the Department of Social Services. They alleged that his 2-year-old stepdaughter, who normally resided in his home, had been slapped in the face, spanked on the buttocks, and placed in a laundry tub so that cold water ran over her head and body. Before this incident, staff members claimed that the stepfather had lifted this child to her toes by her hair and kicked her across the room. The stepfather was also accused of having shaken the crib of the 2-year-old stepdaughter with violent force. Mr. B. reportedly treated his 3-year-old stepdaughter in similar fashion.

A hearing had been held shortly after the initial complaint, at which time the two stepdaughters were placed in foster homes for fear of their safety. The only family alternative was the home of the maternal grandmother, but due to a longstanding conflict between her and Mr. and Mrs. B., placement outside the family was recommended.

At the court hearing, Mr. and Mrs. B. consistently denied any abuse of the two children. Both stated that the reports were fabricated by the maternal grandmother, who was trying to break up the marriage. Mrs. B. further claimed that her former housekeeper had been influenced to tell false stories by her mother and her sister.

The history of the parents revealed that the mother of the children, an Anglo woman 35 years old, was born in a nearby Los Angeles community. She and her half-sister were raised by her mother and grandmother. She described her family as extremely close until 5 years prior to the first interview. She claimed she had seen her biological father only twice in her life and did not know her stepfather. After graduation from high school, Mrs. B. began working and married her first husband in 1974. The two children in question were born from this union.

Mr. B. was born in Mexico and raised by his parents on a ranch along with three brothers and four sisters. He recalled having had a childhood of hard work and physical punishment. He very reluctantly shared information about the whippings he received whenever his father felt he was not living up to his expectations of working and acting like a man. He indicated that, from his perspective, his father expected more of him than from his younger brothers, because he was expected to provide an example in his father's absence.

Mr. B. had little formal education in his early years. In 1972, he entered the United States legally and began doing factory work. He claimed he also had worked in a bakery. For the year and a half prior to the first interview, he had been employed as a maintenance man in a local discount store. He earned approximately $800 per month. Mr. B. explained, however, that he had five children from a common-law wife in Mexico and was sending money to Mexico to support them. Mr. and Mrs. B. met in 1975 and were married in 1977, shortly after her divorce from her first husband. Both claimed that the two stepdaughters were the cause of their strained relationship.

Speaking with other people familiar with the couple's background revealed that the maternal grandmother on occasions had complained that the children had been abused severely by Mr. B. Although she had not reported previous incidents, she was happy that the children were now being protected. Her impression was that the stepfather could have killed one of the children and the mother would not have said a word. She reported that she lived behind the home of the family for 2 years and observed her son-in-law constantly abusing the children. She stated that her daughter had told her that if she did not like the type of discipline the children were receiving, she could move out. She indicated that her daughter "hated her" and had not spoken to her in 6 months because of the incident.

One other source of information was a Mexican woman who had worked as a live-in housekeeper for the family during 1977. She reportedly testified in court that, over a 4-month period, she had seen many incidents of the stepfather abusing the children. She did not report the incidents to the mother because she claimed the mother seemed to be aware of the abuse but did nothing to protect the children. The mother seemingly feared for the safety of the children but was more afraid of losing her husband. The housekeeper also reported that, along with the physical beatings, the stepfather would scream and shout at the children. The housekeeper related being afraid of the father; therefore, she had never attempted to discuss his treatment of the children with him. She described the father as believing that he could do whatever he wanted with the stepchildren.

This attitude of self-assurance, although subdued, was obvious during Mr. B.'s involvement in therapy. He continually attempted to control the direction of discussions and became resistant and uncommunicative when prevented from doing so. Although the couple was seen for 6 months on a weekly basis, progress was minimal. Mr. B. demonstrated considerable resistance to changing his perspective of the male role within the family. He consistently rationalized his situation by focusing on how hard he had worked in acquiring his personal possessions, as well as referring to the strict and physically punitive environment of his own childhood.

This case was eventually terminated and referred back to the Department of Social Services for reevaluation and reassignment. The unsatisfactory ending of therapy, an all-too-frequent occurrence, meant the possibility that the children would be subject to further mistreatment until another complaint was filed.

The "C" Case: Cultural Rigidity. Mrs. C., a 28-year-old Mexican mother, came to the attention of the Juvenile Court in 1977. The charges were that she beat her 8-year-old daughter with a brush, inflicting several bruises on the upper body and face and a cut inside the child's mouth. A scratch on the right side of the girl's face supposedly had been inflicted by the mother with a knife.

The investigation conducted by the Probation Department revealed that this was the second report of abuse of the same child in a 7-month period. In the first incident, the child had sustained a contusion in the shape of a heel mark on her head, as well as bruises and swelling on the palm of her left hand. No such complaints or reports involved a 2-year-old half-brother, offspring of Mr. and Mrs. C.

At the court hearing, the mother attributed her actions to overwhelming frustration and uncontrolled rage over her inability to get her daughter to mind her. The stepfather, Mr. C., preferred to ignore the problem and let Mrs. C. deal with her child. The parents complained that the child had begun leaving the apartment at night without their permission after the entire family had gone to bed. Both parents expressed frustration at being unable to make the girl stop such behavior. While both were obviously concerned for her safety, the parents also expressed anger at the stubborn, unimproved attitude of the child. The court ordered the couple to become involved in a therapeutic relationship.

The family history revealed that the mother had eight brothers and sisters, all of whom resided in Mexico. Her father, who was a farmer, died 4 years before the abuse incident. The maternal grandmother lived in a small village in Mexico, but because of the distance, they were not in contact. The last time Mrs. C. had seen her mother was just before she came to the United States in 1971.

Mrs. C. never attended school and was only able to read a little; she was unable to write in either Spanish or English. At the age of 15, she had moved out of her home and gone to Acapulco to live with her sister. While there, she met and became pregnant by the biological father of the child. Interestingly, she could only recall the man's first name, although they had known each other for over a year. The child was born in 1969 after the couple had separated. She claimed that the pregnancy, labor, and delivery were all normal. While still in Acapulco, she met Mr. C. and subsequently came to the United States with him, leaving her child behind in the care of her sister. Approximately one year later, the child joined the family in the United States.

Mr. C. was born in Mexico in 1931. He had three sisters and two brothers, all of whom lived in Mexico. He managed to complete three years of formal education. His father died when he was 12 years old. His mother, who did not remarry, is still living in Mexico. While raising the children, she worked at selling farm products.

Mr. C. admitted having a common-law relationship, which began when he was 22, with a woman in Mexico for 18 years. He added that two children were born of this union and that he was sending them $100 per month. He had separated from his common-law spouse when he came to the United States with Mrs. C. He stated that they had one child, a 2-year-old son. At the time of the child abuse incident, Mr. C. was working as a repairman in a jewelry factory and earning $195 per month.

The therapeutic program developed for this couple consisted of individual, family, and group methods. As the sessions progressed, family members verified that the 8-year-old girl was, in fact, beaten repeatedly by her own mother. Reportedly, on one occasion, the mother was extremely angry with the child because she would not divulge where she had obtained a small bracelet. The mother hit the child with an electric cord repeatedly until Mr. C. came into the room and said, "Stop or you will kill her."

The girl recalled another incident when the police brought here home from school after school personnel suspected that the child had been beaten. The police spoke with the mother and instructed her to refrain from hitting the child in the future. On this occasion, the child refused to admit having been beaten by her mother because she felt it would only make the situation worse.

Although some improvement resulted from the combined therapeutic activites, the couple was considered a "minimal gain" case with a poor prognosis. Both Mr. and Mrs. C. held fast to the notion that parents had the unchallengeable right to raise their children as they saw fit. Interestingly enough, the child stopped leaving home at night without permission and demonstrated some improvement in self-control.

Within time, the case was officially closed, with a strong recommendation made to protective services for continued supervision to maintain some assurance over the safety of the child.

The "D" Case: Environmental Stress. The case involved two Mexican-American children, a 7-year-old girl and her 2-year-old brother. The children were brought to the court's attention in January 1978, because they were physically abused by their mother, Mrs. D., and her common-law husband, Mr. D. The children had also reportedly been left alone in their home for extended periods of time on different occasions. At the time the children came to the attention of the authorities, the 2-year-old boy was suffering from a case of measles.

The explanation for and acknowledgment of the injuries and neglect by both parents seemed honestly stated. The justification offered for the physical abuse involved the fact that both children refused to eat sufficient amounts of the foods prepared for them. In addition, the 2 year old was mistreated when he showed regression in his toilet training. Both children were struck with a leather belt or an open hand.

Regarding supervision of the children, the parents explained that both were left alone when the mother accompanied Mr. D. to his place of business. Mr. D., a State of California parolee since July 1977, was a partner in a camper manufacturing business. When gone from home, the parents would leave food for both children to be prepared by the 7-year-old child. Readily recognizable here was an overexpectation on the parents' part concerning the ability of the children to accomplish specific acts or tasks. The parents further endangered their safety by instructing the 7 year old to heat or cook on an open-flamed stove.

Specifics of the physical abuse included the children's having been slapped and beaten with a belt by both parents, bruising their feet, legs, thighs, buttocks, face, and ears. Because of the apparent severity of the abuse, the children were placed in foster homes.

When the abuse incidents were discussed with the parents, they appeared to be honestly remorseful. They both requested help and advice and expressed an intention to cooperate in any type of rehabilitation program that would eventually result in the return of their children.

Discussions with the 7-year-old daughter provided supplementary information. She stated that, on different occasions, she and her baby brother had been struck by both parents. On the most recent occasion, the girl stated that her little brother was beaten because he had defecated in his pants. She added that she could not remember how many times they had been mistreated. The best she could remember was that the beatings had occurred a few times, but she added that they had been left alone at home on numerous occasions. She said she was instructed to feed her brother the food that was left for them and that her responsibility was to prepare it on the stove. She admitted at times to being afraid, although she said she was given the telephone number where her mother and stepfather could be reached.

The family history provided by the mother during her many therapy sessions was that the actual father of the 7 year old was a man who was residing somewhere in Colorado, a 27 year old she had not seen for approximately 4 years. The 2 year old had been fathered by Mr. D.

Mr. D. had been relased in mid-1977 from a prison in the northern part of California. He stated that he had served time for heroin sales, and he was worried about what implications the child abuse charges might have on his parole status. These charges, however, did not result in revocation of his parole, provided that he continued to be involved in therapy.

This family participated in therapy for approximately 1 year, receiving a combination of inidividual, family, and group treatment. The status of the family at termination was considered good, with both children having been returned to the parents. The Department of Social Services assigned the responsibility of ongoing supervision of the case to one of their own staff. The parents have continued to show improvement in their own relationships, as well as in their own parenting attitudes and skills.

Conclusion

In-depth analysis of the four preceding case histories clearly points to the diversity existing among various incidents of child abuse. While all the cases involved individuals of Mexican and Mexican-American heritage, factors other than cultural mores must be examined in gaining a meaningful insight into the ongoing dynamics. Cultural factors in isolation fail to explain adequately why child abuse occurs or how it is manifested, even in those cases (such as case "C") where cultural expectations of childhood behavior appear deeply imbedded in traditional values. The development of a diagnostic scheme that attempts to explain the significant antecedent variables in relation to the behavioral manifestation of abuse, as well as its prognosis, must incorporate an interactional perspective. This perspective involves detailing individual characteristics as they interact with environmental and sociocultural influences. This integrative approach, thus, provides the framework within which cases of child abuse must be analyzed.

Vega et al. (Chap. 1) and Miranda et al. (Chap. 7) have developed life events models that attempt to outline the interactional relationship between individual, cultural, and social factors as they relate to the precipitation of psychosocial stress in the individual. Key to these models are the mediating effects of an adaptive or maladaptive screening process as characterized by the three principal factors defining the models (individual, cultural, and social environment). Analysis of child abuse cases in relation to these two models strongly encourages the "holistic" examination of the offenders from a multiphasic perspective as opposed to the simple factor, linear causality models of the past. The advantage of interactional models is particularly great in those cases where ethnicity is a significant factor, since problems have existed in the social service field with stereotyping. As is exemplified in the four case histories provided earlier, individual disabilities, inadequate social supports and coping styles, plus inordinate environmental stressors, are frequently better explainers of child abuse incidents than are rigid interpretations of cultural influences. Even in such situations as depicted in case "C," where traditional socialization practices influence the parents in an inappropriate manner (i.e., ineffective coping styles), inadequate financial and educational resources, as well as poorly developed social support networks, greatly aggravated the parents' ability to control their daughter in an authoritative manner. Understanding the parents' inadequately developed coping skills and limited support networks, plus their continuing limited access to social service resources, is necessary in gaining an understanding of how to intervene effectively in "loosening up" their rigid child-rearing practices.

While the models developed in chapters 1 and 7 imply an equal weight as well as timing process in relation to the interactional nature of the three sources of events, using the models as diagnostic schemas may prove more beneficial if they are perceived as a sequencing of events. Clinicians are accustomed to analyzing the client in relation to intrapersonal (individual) strengths and weaknesses for purposes of recommending therapeutic intervention. The general neglect of cultural and social environmental factors seriously curtails the effectiveness of this process, particularly in child abuse cases where definitions of abuse as defined by cultural mores, and the impact of oppression as a form of social environmental stressor, are highly significant. The four case histories support this supposition as seen in the admixture of personality problems, cultural forces, and environmental stressors that characterize each case. A unidimensional examination of individual characteristics would provide poor insight into the ongoing process. The significance of intrapersonal factors remains critical, however, and must be included in any overall diagnostic workup.

Instead of restricting the diagnostic session to a review of intrapersonal strengths and weaknesses, using the analysis of individual characteristics as a starting point would serve cases of child abuse better. Few would deny the importance of gaining insight into the personality dynamics of the husband and wife described in case "B." Mr. B.'s inordinate need for control, coupled with his wife's excessive feelings of dependency and powerlessness, creates an unhealthy coupling process in the parenting of their children. Sensitivity to Mr. B.'s childhood, which suggests the possibility that he was a victim of child abuse, greatly helps in understanding Mr. B.'s cognitive set in relation to child-rearing practices. However, totally attributing the problem to Mr. B.'s severe early childhood and/or his wife's dependency needs would exclude the significance of the conflictual dynamics between Mr. B. and his Anglo mother-in-law. Examination of their social support network would quickly reveal a virtual absence of resources at both the material and emotional levels. The mother-in-law's rejection of Mr. B.--overtly stated as a dislike of his parenting behavior but potentially set up by her inability to accept his cultural value system or lack of acceptance of her daughter's marriage to a Mexican--depicts the type of social environmental factors that must be assessed in understanding cases of child abuse more completely.

The diagnostic process, thus, would appropriately start with an in-depth analysis of the parents' background, personality assets, and coping styles; then it would move to an examination of their social environment as it relates to family and extended social support networks, community resources, and institutional barriers. The third and final factor in the diagnostic sequencing process would be an examination of cultural variables. The cultural factor is purposely reserved for the final analysis to prevent the likely possiblity of the stereotypical overgeneralizations that often obscure the ethnic client as an individual with personality strengths and weaknesses apart from any cultural value set. In addition, cultural stereotypes frequently cloud the reality of the client's social environment by setting up expectations in the diagnostician's head that hold little or no relevance to the cient's actual lifestyle.

An example of the preceding is seen in case "A," where the normal expectation of a large, extended family network was not fulfilled. Mrs. A.'s extreme sense of isolation and her growing despair over her inability to obtain emotional and social support exemplify the aggravation of real cultural forces by the lack of an expected environment through which to satisfy personal needs. Mr. A. was fulfilling what he perceived to be his role as an effective Mexican male by spending considerable time outside the household obtaining financial security. His expectation that his wife would happily attend to household and child-rearing duties (as was his experience in Mexico) failed to consider the fact that his wife, partly because of her recent arrival in the United States, did not have the kind of social support system that in all likelihood existed in Mexico.

While cultural value systems have a significant impact on an individual's behavior, the environmental supports necessary for their manifestation may not always be in place. An effective understanding of case "A" requires an in-depth examination of both cultural variables and the social environmental context in which they are to be played out. While intrapersonal variables appear to be less significant in case "A," with the exception of Mrs. A.'s sense of isolation as a symptom of her inadequate social support system, this factor must remain a part of the total assessment profile. Each of the four case histories tends to emphasize different factors as having a dominant role in explaining the abuse case, but all four cases reflect some part of the interactional nature of individual, cultural, and social environmental factors.

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APPENDIX

Questionnaire

The following information is very important to the study, but will be kept in the strictest of confidence, with no individual identified.

Identifying Data

1. Sex of respondent:

___ Male
___ Female

2. Age of respondent:

___ Under 21
___ 21-29
___ 30-39
___ 40-49
___ 50-59
___ 60 and over

3. Respondent's marital status:

___ Married
___ Single
___ Divorced
___ Separated
___ Common-law
___ Widow
___ Widower

4. Respondent's educational level:

___ Grammar school
___ Some high school
___ High school graduate
___ College/university
___ College/university graduate
___ Vocational
___ Other

5. Country where education was obtained:

___ Spain
___ Mexico
___ U.S.
___ Central America
___ South America
___ Other

6. Respondent's ethnicity:

___ Mexican-American
___ Mexican
___ American
___ Spanish
___ Spanish/American
___ Indian
___ Other

7. Respondent's primary language:

___ Spanish
___ English
___ Other

8. Respondent's current living arrangements:

___ Alone
___ With spouse
___ With children
___ With boyfriend/girlfriend
___ With parents
___ With relatives
___ With friends
___ With roommate
___ Other

9. Number of children belonging to respondent:

Age___ Sex___ Age___ Sex___
Age___ Sex___ Age___ Sex___
Age___ Sex___ Age___ Sex___
Age___ Sex___ Age___ Sex___
Age___ Sex___ Age___ Sex___
Age___ Sex___ Age___ Sex___

10. How many children are presently placed in foster homes?

____

11. What is respondent's religious upbringing?

___ Catholic
___ Protestant
___ Other

12. Number of years respondent has lived in Los Angeles:

___ 1-5
___ 6-10
___ 11-15
___ 16-20
___ 21-25
___ 26 and above

13. What was the type of job of the respondent at the time of the initial contact with the agency?

____

14. Is respondent presently employed?

Yes_____ No_____

15. Was respondent employed at the time of abuse incident?

Yes_____ No_____

16. What is respondent's present job?

___ Unskilled worker
___ Semiskilled
___ Skilled Job Title:_______________

17. Gross yearly income:

(respondent)	(spouse)
$ 0 - 2,000_____	$ 0 - 2,000_____
2,001 - 4,000_____	2,001 - 4,000_____
4,001 - 6,000_____	4,001 - 6,000_____
6,001 - 8,000_____	6,001 - 8,000_____
8,001 - 10,000_____	8,001 - 10,000_____
Over 10,001_____	Over 10,001_____

18. Does the respondent receive income from any public assistance program?

Yes___ No___

If yes, what type?

___ AFDC
___ AB
___ ATD
___ Other

19. The respondent's childhood relationship with his father/mother was:

___ A. Happy and memorable
___ B. Unhappy and something respondent prefers to forget
___ C. Not very clear in respondent's memory
___ D. Confused and complex

20. As a child the respondent's parents demanded:

___ A. Strict unquestioned obedience to every command
___ B. Strict obedience with an explanation of why respondent must obey
___ C. Little or no conformity to their commands
___ D. Varying obedience depending upon their moods

21. As a parent, the respondent expects his children:

___ A. To give him/her complete love and affection
___ B. To give the respondent love and affection earned
___ C. To act like an adult
___ D. To earn love and affection from the respondent

22. At the time of the initial evaluation, the respondent is best described as:

___ A. Hostile and aggressive
___ B. Ascribing to the "spare the rod and spoil the child" notion
___ C. Lacking in warmth towards persons present during the initial evaluation
___ D. Not recognizing the dangers of using physical punishment in the disciplining of his children

23. At the time of the second interview, the respondent is best described as:

___ A. Feeling remorse for the injuries inflicted on the child
___ B. Angry and attesting to having done what his/her parents taught him/her to do in relationship to raising his/her children with force
___ C. Not feeling any remorse for the injuries inflicted upon the child
___ D. Thinking in very bizarre manner

24. The respondent's relationship with his/her relatives has been described by the respondent as being:

___ A. Close
___ B. Strained
___ C. Supportive
___ D. Nonexistent

25. Has the respondent had any of the following prior to the alleged abusive incident?

___ A. Criminal conviction
___ B. Loss of job
___ C. Loss of a love object
___ D. Hospitalization

26. Has the respondent ever had other relatives identified as having abused a child?

___ A. Spouse
___ B. Brother/sister
___ C. Parent
___ D. Uncle/aunt

27. Has the respondent in the past or present:

___ A. Used illicit druge habitually?
___ B. Used alcohol habitually?
___ C. Used both illicit drugs and alcohol?
___ D. Been involved in criminality?

28. As an adult, has the respondent been in psychotherapy for:

___ A. Personal problems
___ B. Emotional problems
___ C. Interpersonal problems
___ D. Physical problems

29. The relationship of the respondent to the identified abused child is:

___ A. Natural parent
___ B. Stepparent
___ C. Grandparent
___ D. Adoptive parent

30. The respondent's family is comprised of:

___ A. Respondent and child(ren)
___ B. Respondent and spouse only
___ C. Respondent, spouse, and child(ren)
___ D. Respondent, spouse, child(ren), and relatives

31. The respondent's state of mind during part of or the entire period of involvement with the agency was:

___ A. Stable and rational
___ B. Unstable and irrational
___ C. Angry and vindictive
___ D. Defensive and projective

32. Under what condition was the respondent involved in psychotherapy as an adult?

___ A. Voluntary
___ B. Voluntary based on recommendation of a significant person
___ C. Involuntary (court ordered)
___ D. Institutionalized

33. The respondent's explanation for the injury of the abused child was:

___ A. The child fell
___ B. The child misbehaved
___ C. The child is accused of lying
___ D. Denial that the child was physically abused

CHAPTER 11

THE HISPANIC ADOLESCENT MOTHER: ASSESSING RISK IN RELATION TO STRESS AND SOCIAL SUPPORT

Diane deAnda

Introduction

During the past decade, there has been growing interest in the issue of teenage pregnancy. A great deal of the literature has focused on a search for causal factors, the ultimate objective being the development of preventive programs (Cobliner 1970; Kane 1974; Meyerowitz and Malev 1973; Von der Ahe 1969). However, with the recognition that, unlike pregnant adolescents of previous decades, 85 percent (Sklar and Berkov 1974) of adolescent mothers of the 1970s were electing to keep their infants rather than placing them for adoption, the literature began to explore the experience of adolescent mothers.

The literature dealing with the adolescent mother is quite varied in scope and methodology, abounding in prescriptive essays and case studies, along with a body of empirical research, including a few excellent longitudinal studies (Furstenberg 1976a, 1976b; Osofsky, Osofsky, et al. 1973). The populations cited in the literature have, with few exceptions, generally been black and/or white adolescent mothers. Large-scale empirical studies of the experience of Hispanic adolescent mothers have been virtually nonexistent. This is rather surprising when one examines the recorded rates for births among the Hispanic adolescent population (see table 11-1). While Hispanics represent only 19 percent of the State of California's population, they account for the highest percentage (38 percent) of adolescent mothers in the State. Within the County of Los Angeles, Hispanics account for an even greater percentage (49 percent) of live births among adolescents.

Most of the literature on the adolescent mother has presented a picture of an individual attempting to cope with high levels of stress in such areas as health (Johnson 1974; Osofsky, Osofsky, et al. 1973), educational and occupational opportunity and achievement (Bacon 1974; Furstenberg 1976a, 1976b), marital relations (Bacon 1974; Johnson 1974), and emotional stability (LaBarre 1972; Lewis et al. 1973). A number of authors using a developmental model have made an automatic assumption of risk

Table 11-1. Live births, age 17 and under, 1979

	Black	Hispanic	White	Total
California*	3,617	7,347	6,998	19,244
Los Angeles** County	1,809	3,297	1,368	6,780

* State of California Department of Health Services, Center for Health Statistics

** Los Angeles County Department of Health Services, Office of Vital Statistics

in relation to stress levels based on the premise that the adolescent mother enters her maternal role prior to having successfully completed the developmental tasks of late adolescence--namely:

> development of self-identity, determination of sexual identity and role, attainment of independence and separation from parents, choice of a vocation and commitment to work, and development of a capacity for a lasting, loving, and sexual relationship [Bemis et al. 1976, p. 310].

Based on clinical experience and initial interviews with a limited number of Hispanic adolescent mothers, this author questioned the validity of assuming a priori that the adolescent mother was at risk because of high levels of life event stress. Two preliminary steps seemed appropriate--the sampling of a larger portion of the population of Hispanic adolescent mothers and the development of a model for assessing the degree of risk within that population. The present chapter addresses both these prerequisites by:

1. presenting a summary of the findings from a comprehensive survey of the life experiences of a sample of Hispanic adolescent mothers that explored their problematic and successful areas of functioning; and

2. using the preceding data to develop a model for assessing the levels of stress and areas of risk for the individual adolescent and for determining the specific factors that contribute to or mitigate stress. Assessment of specific factors and their impact

offers the clinician some guidelines as to the most likely points for successful intervention.

Method

A questionnaire was administered to subjects in Woman Infant Child (WIC) programs in the western and South Bay regions of Los Angeles County and in the City of Long Beach. The areas explored in the final questionnaire included planfulness, knowledge and use of birth control, familial relations and support, peer relations, self-esteem and assertiveness, knowledge of child care, parental control, and degree as well as means of expressing and coping with stress. For comparative purposes, data were collected on four age groups (12 to 17, 18 to 20, 21 to 29, 30 and over) across three ethnic groups: Hispanic, white, and black. The Hispanic sample was further divided into English- and Spanish-speaking subsamples. For present purposes, only the data related to the Hispanic adolescent samples will be cited; data from other samples will be referred to only when the contrast or comparison offers important information.

Subjects

The sample consisted of 41 Hispanic adolescents, aged 12 to 17, who were either pregnant or had delivered a child within the past 12 months. Of the 41 subjects, 22 were English speaking and 19 were Spanish speaking.

Most subjects had incomes substantially below poverty level; 53.3 percent of the Hispanic English-speaking (HES) sample and 82.4 percent of the Hispanic Spanish-speaking (HSS) sample indicated incomes of less than $5,000 per year. Moreover, the HSS sample had the lowest income of all age and ethnic groups surveyed.

The HSS adolescent was more than twice as likely as her HES cohort to be married (47.4 percent versus 22.7 percent). More important, however, if the engaged and married categories were combined, the majority of young women in both groups (54.5 percent and 68.5 percent, respectively) were found to be involved in a relationship with a commitment to some degree of permanency.

As noted in previous studies of adolescent mothers (Furstenberg 1976a, 1976b; Johnson 1974), pregnancy appears to be a major disruptive factor in the education of the adolescent. Whereas only a modest 40 percent of the HES subjects were continuing their education at the time of the study, a mere 10.5 percent of the HSS sample were continuing in school. Only 9.1

percent of the HES sample and none of the HSS sample had completed high school. Moreover, while only 9.1 percent of the HES population had definitely decided not to continue their education, 29.4 percent of the HSS subjects had made that decision.

While participation was optional, solicitation of WIC program participants over a 2-year period in a variety of cities allowed for a fairly broad sampling of potential subjects and a participation rate of approximately 90 to 95 percent. Therefore, the responses are likely to be fairly representative of those adolescents who participate in WIC programs and to offer at least important areas of focus for understanding the experience of the greater population of adolescent mothers.

Support Network

Living Arrangements. A survey of the individuals with whom the adolescents were living indicated daily participation by many in an extended family network. The greatest percentage of the HES subjects lived with either one or both of their parents (31.8 percent) and their boyfriend or husband (31.8 percent). Most of the remaining subjects lived either with their own (18.2 percent) or their husband/boyfriend's (18.2 percent) relatives. While a larger proportion of the HSS sample lived with a husband or boyfriend (63.1 percent), a larger percentage (48.4 percent) of HSS than of HES subjects also reported that they lived with their parents. The HSS sample did not indicate living arrangements that included other relatives, however. The independent Hispanic adolescent appears to be the great exception, as only one HES subject and no HSS respondents noted this living arrangement. Moreover, the great majority of the adolescents claimed that they were satisfied with their present living arrangements (HES 78.9 percent, HSS 90.9 percent). This offers substantial evidence for the assumption of an actual or potential support network for most of the adolescent mothers. However, one should not ignore the fact that 10 to 20 percent of the adolescents also indicated dissatisfaction with their present living arrangements. Coupled with the finding that 22.7 percent of the HES sample and 17.6 percent of the HSS sample acknowledged that, prior to their pregnancy and/or marriage, they had wanted to leave their parents' house "most of the time," this points to a subsample who does not look upon or presently have available the extended family as a source of support.

Relations With Significant Others. To determine the nature and amount of actual support and control that were exerted by individuals within the adolescent's potential support network, a number of areas were explored:

1. how often the adolescent felt an individual listened to her;
2. how often she felt the person treated her unfairly;
3. how often she acceded to the other's wishes rather than her own;
4. the importance of the other's opinion of her;
5. who offered help and support during pregnancy and at present; and
6. who presently helped with the care of the infant.

Relations With Mother. Within the family network, the young women's mothers stand out quite prominently as the major source of support in every respect. This confirms the findings of Young, Berkman, and Rehr (1975) and others regarding the critical function of the adolescent's mother in dealing with the crisis created by adolescent pregnancy.

An overwhelming majority of the HES adolescents reported their mother to be their major source of support during and after pregnancy (81.8 percent). This rating was about 30 percentage points greater than any other source of support and significantly greater than the rating given by any other age group to their mothers. The HSS adolescents reported a much lower rate (52 percent), but the mothers' position was second only to that held by the husbands. The reason for this lower rate, however, may be the fact that in many cases the HSS adolescent's mother was distant geographically, residing in Mexico. This may also explain why the rate for the HSS sample was nearly 30 percent lower than that for the HES sample, although both the HES and HSS samples indicated that their mother was the primary person who helped them with infant care. The importance of the adolescent's mother in caring for the infant is further confirmed by the fact that the mother was noted as the most frequent source by far of learning about child care skills (HES 63.6 percent; HSS 73.7 percent), nearly 40 percentage points above the next source for both groups. This places the HSS adolescent who is geographically distant from her mother in a particularly vulnerable position; she is not able to count on a source of emotional and physical support that seems particularly vital to this age group. Finally, the mothers' responses to the girls' pregnancies were fairly supportive, the two most frequent responses being "surprised" (59.1 percent) and "understanding" (31.8 percent).

The Hispanic adolescents felt that, of all the people in their support network, their mothers were the most likely to listen to their concerns. Over 60 percent of the HES sample and more than

80 percent of the HSS sample felt their mothers listened to them "most of the time." While these high percentages are noteworthy, equally important is the fact that over 30 percent of the HES sample and nearly 29 percent of the HSS subjects indicated the need for some improvement in this area of communication.

Mothers appeared to have substantial influence and control over their adolescent daughters. Over 50 percent of the HES sample and more than 60 percent of the HSS sample placed their mother's opinion of them as first or second in importance. For the HES sample, only their own opinion of themselves ranked higher, while for the HSS respondents, their mother's opinion ranked first. Moreover, it appears that many of the subjects are likely to compromise or accede to their mother's desires if a conflict arises, since more than 40 percent of the HES and over 60 percent of the HSS subjects indicated they did what their mothers desired when there was a disagreement between them. Part of this may be explained by the tremendous amount of dependence these young people place on their mothers and the support, both emotional and in terms of child care, they receive from them. Nevertheless, the fact that 54.4 percent of the HES sample and 33.3 percent of the HSS sample indicated that their mothers "sometimes" treat them unfairly alludes to some degree of conflict between mother and daughter, particularly for the HES group. The potential this poses for disruption is particularly great since such a high percentage of the adolescents live with their parents and are to some extent dependent on them.

Relations With Father. The communication and support offered to these adolescents by their own fathers appear, at best, marginal. First of all, from about one-quarter to one-third of the young women appear to be the products of single-parent (female) homes.

Only a small portion (26 percent) of HSS subjects saw their fathers as a source of support during and after pregnancy, but the possibility of geographical distance must again be taken into account, as many of the fathers may live in Mexico. In contrast, approximately 40 percent of the HES population listed their fathers as a source of support during and after pregnancy; however, this percentage is half that indicated for their mothers.

While only a little over 25 percent of the HES population felt their fathers listened to them most of the time, 40 percent of the HSS subjects felt this way. An equal number (25 percent) of the HES subjects felt their fathers rarely listened to them.

An indication of the weakness of the father's influence is the fact that the father's opinion of them is ranked fourth in importance for the HES sample and third for the HSS sample. Despite this little emotional-psychological influence, fathers do appear to exert some physical control, as 52 to 60 percent of the subjects indicated that they did what their fathers wanted them to do at least part of the time. When either the HES or HSS subjects disagreed with their fathers, however, they were considerably less likely to do what he wished (HES 31.8 percent; HSS 17.6 percent).

While a substantial number (57.2 percent) of HES adolescents felt their fathers treated them unfairly some to most of the time, few (18.8 percent) HSS subjects had any negative evaluations. This points to a greater potential for conflict for the HES adolescent; this is particularly salient for the large percentage who live in their parents' homes.

Moreover, the fathers' reactions to pregnancy were notably different from those of the mothers, as well as differing between the two subsamples. For the HES sample, the two most frequent responses were "surprised" (31.8 percent) and "very angry" (22.7 percent). For the HSS sample, "happy-excited" (26.3 percent) was the response with the highest frequency, with equal, but low, frequencies (10.5 percent) for "surprised," "very angry," and "understanding." Differences between the HSS and HES samples may be explained in part by the fact that a substantially larger proportion of the HSS group was married, so that more of the HES girls were announcing out-of-wedlock pregnancies.

Although the father is a potential source of support for the adolescent mother, findings indicate that while he exerts some control over his daughter's life, he provides little nurturance or support. The support offered by the adolescent's father appears to be negligible, and efforts seem needed to improve this relationship to tap this potential source of support.

Relations With Husband/Boyfriend. The relationship with the husband or boyfriend appears to have both positive and negative components. That is, the husband/boyfriend does appear to provide substantial emotional support, but a degree of tension and strife between the adolescent and her spouse/boyfriend is also indicated. Noteworthy is the young women's high appraisal of the amount of support they received from their spouses/boyfriends. When the rates for support provided by husband and boyfriend are combined, they become comparable to those of the adolescent's mother.

For both the HES and HSS samples, the opinion of the husband or boyfriend was next in importance to that of the mother, ranking third for the HES and second for the HSS group.

While 53 to nearly 60 percent of the respondents reported that their husband/boyfriend listened to them most of the time, the remaining 40 percent or more alluded to potential communication problems. Furthermore, there seems a moderate amount of conflict in that over 40 percent of the HES population see their husband/boyfriend as unfair at least some of the time, and about 33 percent of the HSS population find their spouse or boyfriend unfair some to most of the time.

It appears, then, that while the statistics regarding the stability of teenage marriages point to a greater potential for conflict for these adolescents, the young women's self-reports indicate substantial strength in their relationships. Conflict and potential for conflict do appear to exist, but so indeed does a great deal of emotional-psychological support from their spouses/boyfriends. This is further supported by data on the husband's/boyfriend's reaction to finding out about the pregnancy. The most frequently reported reaction for both the HES and HSS samples was feeling "happy, excited." None of the respondents in either group indicated that their husband or boyfriend reacted with anger.

Relations With Siblings. While generally responding positively to the adolescent mother, siblings appear to have little influence over her and are not seen as major sources of support. One fact that might account for this is that since most of the respondents are in their early and late teens, many may have siblings who are also minor children and cannot, therefore, offer the support possible from older siblings.

Relations With Peers. One of the most noteworthy findings was the absence of peers in the adolescent mother's support network. The data demonstrate that pregnancy and the birth of a child reduce the adolescent's peer contacts drastically. This rather sudden reduction in peer contact is probably due at least in part to the fact that most Hispanic adolescents who become pregnant do not continue in school, where most of their peer contact was sustained. Whatever the cause, the adolescent mother appears relatively isolated from significant peer relationships at an age when interaction with peers is particularly critical. The most dramatic decrease in peer contact and interaction occurs within the HES population; indeed, while nearly 60 percent interact with peers on a daily basis prior to pregnancy (the second highest rate across all groups), 60 percent interact with peers only a few times a month or less often following pregnancy. For the most part, the HSS population appears to have relatively little peer interaction prior to pregnancy as well (23.5 percent), but even this contact is further limited after pregnancy (12.5 percent). Approximately 20 percent of individuals within each subgroup indicate that they never have contact with friends. The same pattern does not hold true for the black and white adolescent samples, however, who maintained relatively high levels of peer contact daily or a few times per week (70 to 85 percent for black subjects and 60 to 65 percent for white subjects) following pregnancy.

Practically none of the HSS respondents and only about one-fourth of the HES respondents included peers in their list of individuals from whom they received support during their pregnancy or at present. This is particularly interesting in that the reaction of peers to the adolescent's being pregnant was positive, with "happy, excited" (36.4 percent HES; 36.8 percent HSS) ranking second after their initial reaction of surprise (77.3 percent HES; 43.1 percent HSS).

There is some question, as well, as to the quality of existing peer relations. Just a little over 45 percent of the HES population and 37 percent of the HSS population indicated good communication with peers; this was measured by the response that their friends were willing to listen to their concerns "most of the time." As friendships are generally considered reciprocal relationships entered into freely, one would expect these rates to be considerably higher. Moreover, 40 percent of the respondents in each group reported that their friends were unfair to them at least some of the time.

Neither group appears strongly influenced by peer pressure, as few follow their friends' wishes most of the time and even fewer when their own desires conflict with those of their friends. Finally, girlfriends have the lowest rating in terms of those individuals whose opinions about them are important to the young women. This appears to be an area where a source of support could be shaped, particularly with respect to other adolescent mothers, with whom the respondents indicated they were acquainted but with whom they did not initiate frequent contact.

In conclusion, an analysis by the clinician of the actual support offered by individuals within the adolescent mother's potential support network offers information as to relationships that provide nurturance and growth and those needing to be fostered or altered to provide the adolescent with the support and assistance she needs to deal with her new responsibilities. While it appears that the great majority of the adolescents are quite pleased with this new role (72.7 percent HES; 82.2 percent HSS), this does not negate the attendant adjustments and pressures.

Last, the importance and impact of the adolescent's support network may also vary depending on the adolescent's view of self. That is, while even the most self-confident and self-reliant adolescent needs supportive relationships, differences in the degree of these characteristics may require greater or lesser environmental supports. Only a little over 40 percent of the HES population felt their opinion of themselves was more important than anyone else's opinion of them. The overwhelming majority of the HSS respondents ranked their opinion of themselves as fourth in importance, after that of mother, husband, and father. In fact, many of the HSS respondents failed to include themselves at all when answering the question. In any case, the findings indicate that the adolescent's view of the importance of self, particularly in comparison with the significance of others, is an important factor to consider in assessing the adequacy of the client's support network.

Stress

A series of questions were asked to determine the degree and frequency of stress experienced by the subjects, the situations that created this stress, and the methods the subjects used for responding to stressful situations. The questions were framed using terminology that would be most familiar to the population being surveyed. Specifically, questions were asked regarding when they felt "a little upset or angry," "very angry, like really blowing up," and "nervous about things." The same series of three questions were asked for each of the preceding conditions:

1. How often did they feel that way?
2. What things made them feel that way?
3. How could someone tell they were feeling that way? ("What would they see you doing?")

Extent of Stress

While the majority of the respondents (68.2 to 50.0 percent HES; 55.6 to 47.1 percent HSS) indicated that they experienced a moderate amount of stress ("sometimes"), nearly one-third of the HES sample and one-fourth of the HSS subjects reported that they experienced some degree of stress or negative affect "most of the time." In the "little upset or angry" category, the HES population had the highest percentage among the adolescents surveyed across all ethnic groups and the second highest across all ages and ethnic groups. While extreme reactions of anger appear to be relatively infrequent, there does seem to be a small group of individuals (9.1 percent HES; 12.5 percent HSS) who experience such significant amounts of stress in their daily lives that they feel "like blowing up" quite frequently.

As measured by the frequency with which the subjects indicated feeling "nervous," nearly one-fourth of both the HES and HSS populations are suffering from excessive amounts of anxiety; they report feeling "nervous" most of the time. Less than 10 percent of the HES population indicated that their lives were relatively anxiety free, the lowest percentage among all four adolescent groups surveyed. In contrast, more than three times as many (29.4 percent) HSS respondents reported low levels of anxiety.

Stress-Producing Situations

For both populations, the disruption of interpersonal relations through arguments with significant others appears to be the main source of stress, particularly for the HES sample (see table 11-2). Moreover, the rates for the HES population were 20 to 30 percentage points higher than for the three other adolescent groups surveyed (HSS, black, and white). The order of importance of the next two most frequently cited situations is the exact opposite for the two groups of respondents. For the HES sample, the second most stressful situation involves not being able to do what they would like to do. These feelings of restriction result primarily in anger, which emerges approximately twice as often for the HES group (40.9 to 50.0 percent) as for the HSS (22.2 to 27.8 percent) group. Money problems are a source of irritation for over one-third of both groups. However, a notably larger proportion (50 percent) of the HSS subjects indicated that financial difficulties were a source of anxiety as well as anger. This difference is understandable considering the differences in the income levels of the two groups. Less than one-fourth of the HES respondents and only one HSS respondent indicated that they felt overburdened with responsibilities ("too much to do").

The situation of being alone was measured only with respect to feeling "nervous." Noteworthy is the fact that nearly half (45.5 percent) of the HES population marked this item, while not one of the HSS subjects found this to be a source of anxiety. Most important, however, is the fact that the baby's fussing and crying were not indicated by any of the respondents as a source of great anger. The very few who did indicate this situation as a stressor saw it causing them to feel only a "little upset" or "nervous."

Responses to Stressful Situations

Neither the HES nor HSS adolescents allowed themselves to express feelings of anger openly; the response with the most consistently high frequency was becoming silent and suppressing

Table 11-2. Stress-producing situations (percentages): Emotional impact of arguments

HES			HSS		
Little upset	Very angry	Nervous	Little upset	Very angry	Nervous
72.7	72.7	54.5	50.0	44.4	44.4

the expression of anger. In other words, most of the respondents attempted to cope with stressful situations by withdrawal or possibly denial. Moreover, over 60 percent of the HES sample indicated that this was the way they responded not just to a moderate degree of anger but to intense feelings of anger ("feel like blowing up") as well. The subjects' responses to intense anger appear to indicate a bipolar distribution. In other words, the HES respondents either respond by becoming quiet and not responding at all (68.2 percent) or by yelling (27.3 percent) or arguing (31.8 percent). While a number of subjects in each group listed shaking and crying as responses to stressful situations, this response was far more common (the second most frequent response) for the HSS population (31.6 percent HSS; 27.3 percent HES).

In terms of reactions to anxiety (feeling "nervous"), the majority in both groups indicated that they responded with crying or feeling like crying (59.1 percent HES; 57.9 percent HSS). In light of the high frequency of suppression of emotion, it is unfortunate that the item did not allow for a separation between the desire to cry and actually allowing oneself to cry. This may be particularly important for the HES sample, who indicated a high percentage of somatic complaints. One cannot help but wonder if there is not some connection between a coping style that suppresses expression of emotion and somatic complaints.

In summary, the most salient findings were as follows:

1. The majority of individuals in both groups appear to experience at least moderate amounts of stress in their daily lives. (Only a small percentage lives relatively stress-free lives.)
2. A notably large proportion of the HES sample reported feelings of anxiety.
3. Approximately one-fourth of both populations indicated a high degree of stress.

4. Interpersonal problems appear to be the main source of stress for both populations.

5. The coping style of the adolescent mother appears to involve withdrawal, possibly denial, but at least a suppression of feelings.

Knowledge of Child Development and Child Care

To determine the extent of the adolescent mother's knowledge of the most common developmental milestones in infancy, the respondents were asked to provide the age at which an infant was most likely to begin exhibiting the following motor skills: rolling over, sitting, crawling, walking, and talking. The results demonstrated a considerable range of responses in both groups; however, most adolescent mothers appear to expect the production of various motor skills at earlier ages than are the norm. For example, 50 percent of the HES sample and 41 percent of the HSS sample felt that an infant was able to sit between the ages of 3 and 5 months. The bulk of the remaining respondents indicated the age to be 6 months. At the lower end of the continuum, 12.5 per- cent of the HES group and 17.6 percent of the HSS group felt this skill would not be acquired until the 9th month.

While over half of the HES sample (53.3 percent) accurately assessed the time frame for the child's learning to walk (11 to 15 months), less than one-third (31.3 percent) of the HSS sample estimated correctly. Moreover, 20 percent of the HES adolescents and over 18 percent of the HSS sample gave 7 to 8 months of age as their answer.

In summary, it appears that a large percentage of the Hispanic adolescent mothers surveyed are not knowledgeable about some of the most common developmental milestones in their infants' motor skills development.

Medical Knowledge Relating to Child Care. A series of questions were asked to determine the subjects' knowledge of the symptoms of a few common ailments and the type of care given to or sought for infants and young children for various illnesses or conditions.

The great majority of respondents (80 percent HES; 88.2 percent HSS) were able to recognize and correctly label the symptoms presented as those of teething. By contrast, relatively few, particularly among the HSS sample (30 percent HES; 6.3 percent HSS), were able to recognize the symptoms of ear infection.

The subjects were asked what they did or would do when an infant had a temperature beyond 102.5 degrees. The most frequent response was to call the physician for advice. The respondents appeared relatively lacking in knowledge of standard cooling measures. While this lack of knowledge was not unique to the adolescent samples, the adolescent groups consistently had the lowest percentages. Noteworthy also was the fact that less than half the HES population and less than one-quarter of the HSS population were familiar with use of the most basic over-the-counter medications (aspirin and acetaminophen) in the treatment of elevated temperatures.

Subjects were presented with a list of symptoms varying in gravity and were asked to mark those for which they would either call the physician or take the child to be examined by the physician. Lack of knowledge and concomitant anxiety were implied by a percentage of respondents who appeared to contact the physician for all symptoms; they saw even minor ailments as needing medical attention. At the other extreme, while approximately 60 percent of the HES mothers and 57 to 47 percent of the HSS subjects recognized the need to contact a physician for an infant with severe diarrhea or vomiting, 40 to 50 percent of the Hispanic adolescent sample did not recognize this need.

While relatively few areas of knowledge of child care and child development were surveyed, preliminary data do indicate a definite need for education in these areas for a significant proportion of the adolescents surveyed. Moreover, although these adolescents were in a program (WIC) that included nutritional instruction, data regarding their introduction of various foods to their infants generally indicated a pattern of premature introduction. Also, while the program repeatedly stressed and reinforced the importance of breast feeding, a significant proportion of the sample elected to bottle feed rather than breast feed their infants (45 percent HES; 39.9 percent HSS). (The HSS sample had the highest percentage of breast feeding mothers among all the adolescents in the various ethnic groups.) Important, also, is the fact that the reason given by the majority of adolescent mothers for deciding to breast or bottle feed was that it was "better for the baby." The fact that the program consistently emphasized that breast feeding was best for the baby, along with the group's premature introduction of solid foods, indicates that this age group may require a unique method of instruction for them to assimilate the information needed for the best infant care.

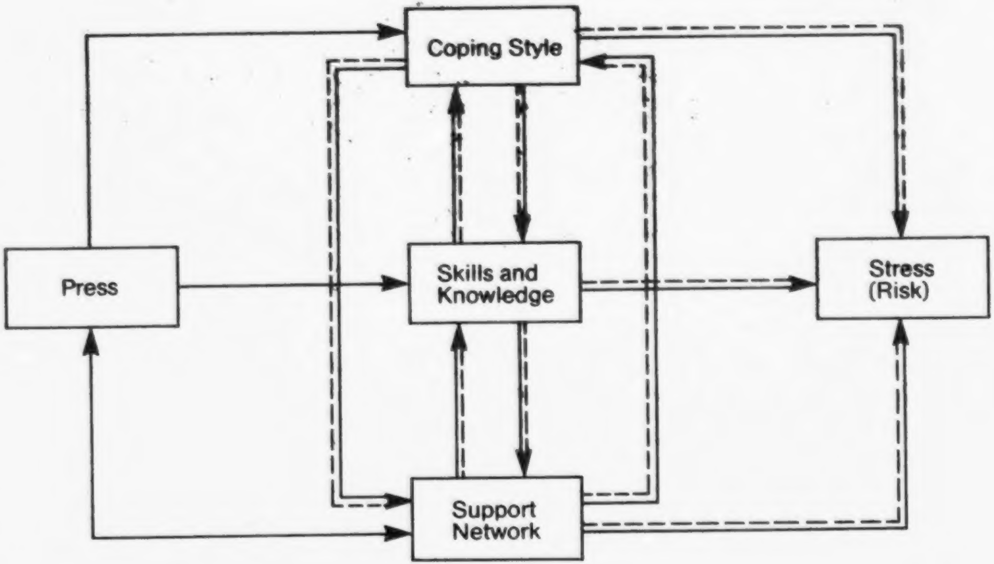
Model for the Assessment of Risk in the Adolescent Mother Population

The preceding findings, while not directly attributable to the entire population of Hispanic adolescent mothers, are useful in that they provide information for determining major areas of focus for assessment and intervention with this population. From the data, a model (figure 11-1) has been developed that provides a means of measuring the degree of risk for the adolescent by assessing not simply the extent of press upon the individual but also the moderating effects of inter- and intrapersonal factors. The impact of this press (see figure 11-2) is moderated by three main categories of intra- and interpersonal variables--namely, the individual's coping style, specific skills and knowledge, and the extent and effectiveness of her support network. These factors either mitigate the effects of press upon the individual or intensify its impact. For example, the press exerted by the demands of the newborn is intensified if the adolescent has few skills and limited knowledge in the area of child care, particularly if the press is increased by illness of the neonate or the adolescent mother. However, if the mother has a strong support network capable of assisting in providing physical and emotional support to both her and her child, this may mitigate the impact of the situation. Simultaneously, the adolescent's coping style can mitigate or intensify the stress generated by the newborn's demands or illness. A coping style that results in problem solving may lessen or shorten the impact, while a style characterized by suppression of emotion and somatizing would ultimately increase the stress experienced by the adolescent.

Moreover, as figure 11-1 indicates, the factors also interact with one another. For example, individuals in the adolescent's support network can assist in the development of needed child care skills and knowledge, or they can hinder this development by assuming all responsibility for the infant, excluding the adolescent mother. Individuals within the support network can serve as models for effective or counterproductive coping styles. Aggressive/antagonistic coping sytles may alienate people in the adolescent's support network, and the presence or lack of communication skills may make rapprochement more or less likely. Last, while support networks can offer substantial benefits, in any reciprocal relationship there are also concomitant demands, which in turn become part of the press on the individual.

The model in figure 11-1 can be used as a general guide in assessing an individual's degree of risk and the contributing factors. The greater the number of solid lines connecting the components, the higher the stress/risk for the individual. Conversely, the greater the number of broken lines (indicating

FIGURE 11-1.
Model For Assessing Risk


Coping Style
Press
Skills and Knowledge
Stress (Risk)
Support Network

- - - - -Mitigates the effects of the environmental press
———Intensifies the effects of the environmental press

FIGURE 11-2.
Examples of Possible Components to
Assess Within the Factors on FIGURE 11-1

PRESS
- infant needs/demands
- financial problems
- health problems: self, infant, significant, others
- legal problems
- demands from people in social network

COPING STYLES
- denial
- withdrawal/suppression of emotion
- aggressive/antagonistic
- assertive
- somatizing
- problem solving
- intellectualizing

SKILLS-KNOWLEDGE
- child care
- medical care
- communication
- occupational/academic
- birth control

SUPPORT NETWORK
- composition vs. extent
- formal vs. informal
- concrete vs. emotional support
- benefits vs. costs

positive factors mitigating the effects of both press and the other moderating factors), the lower the stress or risk level.

For example, the adolescent mother who has a coping style characterized by problemsolving, substantial knowledge and skills in the area of child care, and a number of significant others who provide concrete as well as emotional support would be considered a relatively low-risk individual. In contrast, the adolescent mother who has a coping style characterized by denial, who exhibits minimal child care skills and knowledge, and who lacks an effective support network would be considered a high-risk individual. To reduce the risk for the adolescent mother, the objective must be to alter the factors that have an intensifying function, increasing those that mitigate the effects of press on the individual.

The model permits the consideration of a significant finding from the study--that while specific risk factors can be noted within this adolescent populaton, a number of factors indicating strengths and resources can also be seen. For example (particularly for HES adolescent mothers), while their own knowledge of child care may be extremely limited (a stress/risk-intensifying factor), the great majority indicated considerable support from their own mothers in assistance with child care, instruction in child care, and emotional support (a stress/risk-mitigating factor). In this situation, the clinician would focus not only on the development of skills and knowledge in child care but also on utilizing and further strengthening the mother-daughter relationship. This might involve determining the costs as well as the benefits of maternal support--that is, the extent to which maternal support places new demands (press) on the adolescent as well mitigating other aspects of environmental press. For example, the financial and child care benefits made available by residing (with or without spouse) in the parental home may be outweighed by conflict with parents over the amount of independence allowed the adolescent who is assuming adult responsibilities and roles. The effects of this situation may be further complicated by other factors noted in the model. For example, poor communication skills and either an aggressive/antagonistic or denial/withdrawal coping style could intensify the impact of conflict between the adolescent and her parents, especially if she is particularly in need of their support. This places the adolescent in a double-bind situation, where some type of loss will result from any response she makes. Intervention might include working on developing the adolescent's communication skills to improve interaction between her and those in her support network. This would include teaching the client to respond to interpersonal conflict with a less counterproductive coping style. Specific interventions would be determined by their similarity to the already existing counterproductive response. This is so for two reasons:

1. It is important that coping styles be both culturally and idiosyncratically relevant. Selecting a style most akin to that presently available in the client's repertoire makes that relevance most likely to occur. For example, the adolescent who responds in an aggressive/antagonistic style may be taught a more productive assertive style, while the adolescent who copes through denial/withdrawal may be instructed in a more reflective problem-solving approach.

2. As Schwartz and Goldiamond (1975) point out, clients' responses are generally functional but often at a high cost. For example, the adolescent's aggressive/antagonistic response to her parents' attempt to restrict her social activity may be effective in reducing the frequency with which her parents attempt to initiate control in this area. The cost may be extremely high, however, in terms of physical or emotional support lost as a result of this negative interaction. Conversely, the adolescent who responds to what she considers unfair treatment by withdrawing and suppressing emotion may maintain ostensibly good relations with and support from those in her immediate environment, but at the cost of psychosomatic ailments and/or a denigration of self. While standard assertiveness training skills may be inappropriate in this case, the use of a more slowly paced, reflective problem-solving style might prove more consistent with the client's cultural milieu and former coping style. It might, therefore, be less disruptive to existing supportive relationships.

Conclusion

The findings of this study appear to coincide with those encountered by Vega (1980) in his determination of "high-risk" groups in the Hispanic population. The Vega study found Spanish-speaking "women in their late teens and early twenties" to be an exceptionally vulnerable population. Data from the present study indicate that this may also be the case for the Hispanic Spanish-speaking adolescent (the Vega study dealt only with adults 18 years of age and older). While there were some areas in which the HES and HSS samples paralleled each other, as a whole the HSS respondents appeared to have consistently fewer resources than the HES group. While one might expect to see evidence of greater support from an extended family for the more traditional HSS subjects, this was not the case. Fewer individuals within the HSS sample's extended family were available than in the HES population, probably because most relatives resided in Mexico. The HSS mother tended to have fewer peer contacts, as well, effectively limiting her support network to her husband. While the degree of conflict experienced by the HSS sample was not extremely high, the typical response to even the most upsetting interaction was the suppression of emotion and withdrawal. Their knowledge of child care, particularly in terms of medical crises, was definitely limited. Coupled with a minimal potential support network, this places the HSS mother and the infant at particular risk. Finally, this group has the greatest economic press; of all groups surveyed, their income was the lowest.

The HES sample appeared to have a considerably greater support network within the extended family; however, it also indicated greater stress than the HSS cohort. This may indicate actual differences in the degree of stress experienced by HES and HSS adolescent mothers, or it may merely demonstrate that the HES sample is more willing to note and report negative experiences. Furthermore, over 45 percent of the respondents manifested their reported "nervousness" in somatic complaints—namely, gastrointestinal discomfort. Again the connection between suppression of emotion and somatic complaints needs further research. Like their HSS cohorts, the HES sample also showed somewhat less, but still considerable, lack of knowledge about child care. However, the group did have a broader support network on which to rely in this area and a greater reliance on physicians for the infant's medical care.

These data, along with the author's clinical experience, indicate that Hispanic young women—in contrast to members of other ethnic/racial groups who become pregnant during adolescence--are most likely to marry either before or soon after the birth of the child. This factor can either enhance or impede the adolescent mother's psychosocial functioning. That is, the Hispanic adolescent mother can experience either a widening of her support network (via her husband and his family) and/or an increase in risk because of the poor success rate of adolescent marriages and the amount of coercion into marriage provided by premarital childbirth.

Both the data and the model point to an instructive and supportive approach for intervention with this population. Direct instruction is needed to develop more productive coping styles and specific skills and areas of knowledge, along with strengthening and expanding the adolescent mother's support network. In terms of expanding the support network, interventions that might be particularly effective for this population might involve developing support groups made up of adolescent mothers. Both samples indicated relatively little contact with peers even though subjects were somewhat acquainted with other adolescent mothers. While strengthening the relationship with parents (particularly the mother, who is the primary figure) and shoring up the relationship with boyfriend or spouse (because of the instability of most adolescent marriages) are important, interaction with peers may prove beneficial in a number of ways. First, sharing similar experiences may help alleviate the isolation that probably accompanies the sudden cutoff of peer contact demonstrated by the data. Second, a group situation can be conducive to instruction and practice in specific skills--from child care to communication. Third, models of various coping styles may be made available, particularly if some range exists in the age and experience of the group members. Last, contact with other adolescent mothers could offer an additional source of support, one that offers benefits with few concomitant costs, it is hoped.

The model does not provide algorithmic rules for the clinician; that is, the precise weights, effects, and interactions of the various factors cannot be offered. The model does, however, offer heuristic guidelines for assessing the impact (both directly and in interaction) of the various factors upon the adolescent mother, allowing a somewhat loose gauge for the degree of risk to the individual and a framework for comparisons across individuals as well.

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